

Satakunta University of Applied Sciences

RESEARCH CENTERS





ROBOAI

Research and Development Center

RoboAI combines the expertise of Satakunta University of Applied Sciences and Tampere University.

Our research serves companies, communities and operators in the public sector in the Satakunta region with topics related to robotics and artificial intelligence. We carry out development projects to support testing, product development and design. The heart of RoboAI is located in the joint use laboratory on SAMK Pori campus.

RoboAI brings together the strategically important competences of Satakunta:

- automation and robotics
- welfare technology and health technology
- circular economy of technological metals
- intelligent systems
- artificial intelligence, data analytics and optimisation.



Over the years, the expanded activities have been grouped under the Industry, Health, Green and Intelligent Systems subsets. The Green subset works closely with Prizztech's Green Growth team.

Our activities aim to:

- Support the growth of industry and businesses in the region, increase competitiveness and create a strong basis for the digitalisation of industry and public services.
- Provide high quality research and development and piloting opportunities.

- Promote a culture of experimentation in joint laboratory and simulation facilities.
- Support continuous learning through further training.

The RoboAI community consists of more than 60 experts from different research entities in three different organisations. The RoboAI Academy is RoboAI's incubator, where students can learn, innovate and experiment with new ideas in a hands-on way through enterprise projects. With STEM activities RoboAI brings together operators to develop the technical knowledge of children and young people, and to increase their interest in applying to the technology sector.

RoboAI enables companies to pilot, prototype and test new business ideas and to use new knowledge generated by university research teams.





wander.fi

Research Center **WANDER**

The Research Center WANDER carries out research and product development on water, materials in contact with water and hygiene in indoor spaces.

The expertise and research activities of a multidisciplinary and interdisciplinary team of experts offer companies unique cooperation opportunities for businesses. Research Center WANDER operates at Satakunta University of Applied Sciences, on Rauma Campus.



WANDER is the leading expert in Finland in interaction of water with different materials. We manage high quality scientific research, which is invariably based on interdisciplinary know-how, management of the latest scientific research data as well as excellent knowledge on the research area. We research household water supply, industrial process water, for instance in food industry, wastewater, and natural water sources. The research is based on promoting sustainable development and environmental responsibility.

Research Center WANDER has actively developed hygiene in indoor spaces, and a cluster around this hygiene. We have successfully studied and developed products and solutions that improve hygiene in indoor spaces in cooperation with other central research centers and companies in the same field for nearly ten years. WANDER has been a partner in building Living Lab research spaces where studies about water and indoor environment are carried out.



We research and product development services locally, nationally, and internationally.

WANDER works in cooperation with companies, either in EU funded or nationally funded projects, or directly with a company mandate.

As an example of our expert services, we could mention for example trainings in how to build drinking water systems, how to design antimicrobial products, and expertise in product approval and standardization linked to drinking water.

Research services include, for instance, bilateral research projects with companies and publicly funded projects joining several companies.

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Center for TOURISM BUSINESS development

The Center for Tourism Business Development leads tourism enterprises towards more sustainable, smart and profitable business.

The ability to innovate is key in developing Satakunta as a tourist destination. The key to develop competitiveness is in business renewal, strengthening skills and internationalisation.

The Center for Tourism Business Development is steering the tourism sector towards sustainable and profitable business. The main target group are tourism enterprises. Other target groups include sector developers, municipalities, educational institutions and associations. The center works in close cooperation with provincial, national and international partners.



Main objectives:

- Encourage enterprises to develop their business.
- Innovate by producing and disseminating information.
- Support employment and increase competences in the sector.
- Encourage networking in the tourism sector.
- Internationalise operators and activities in Satakunta area.
- Keeping tourism at the forefront of regional decision-making.

Through center's activities, tourism businesses and other actors in the sector gain know-how, tools and support to develop their own activities. In addition, those working in the sector are kept up to date with provincial, national and international tourism development work.

The center for Tourism Business Development implements tourism development through diverse project activities, which emphasise:

- sustainable and responsible tourism
- skills and employment in tourism
- digital development of the sector
- tourism's diverse environments and resources, such as maritime, coastal, rural, natural, food and cultural areas.





MARITIME LOGISTICS

Research Center

Maritime Logistics Research Center does research and product and service development within the themes of efficiency, safety, blue and green growth. The Center improves operations of logistic chains, maritime safety, and security of supply.

There has been shipping and port activities in Satakunta for centuries. Ships have been built on a large scale in Rauma since the 1940s, and offshore structures in Pori since the 1970s.

Satakunta is a so-called 'larger-than-life' region - with a population share of 4%, our region accounts for 6.9% of the value of foreign trade. Satakunta's ports account for 2.3 times more exports and imports than its population.



The Maritime Logistics Research Center at the Rauma campus of Satakunta University of Applied Sciences conducts research and product and service development on efficiency, safety, blue and green growth. The research center works with companies and other actors in the field to improve the efficiency of logistics chains, maritime safety and security of supply.

The main themes we work on:

- Transport logistics and infrastructure at sea, in ports and on land
- Digitalisation for more efficient and safer logistics
- Reducing harmful emissions from logistics operations
- Developing and growing Finland's maritime cluster.

The Maritime Logistics Research Center is a regional integrating force in maritime know-how, logistics and security of supply. Numerous national and international projects are at the core of its activities. Digitalisation and green growth challenge and create new opportunities for the development of the entire logistics chain as part of a global picture.

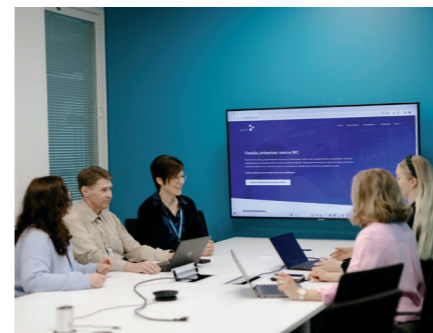


tiedollajohtaminen.fi

Business Intelligence Center BIC

The vision of the Business Intelligence Center BIC, operating at Satakunta University of Applied Sciences, is to make the Satakunta region the forerunner of business intelligence.

Information is the key to successful business decision-making. Business development and the renewal of products and services require companies to better understand their own operations and the market around them. They need to be able to respond better to customer demands and react more quickly to change. This understanding is based on data collected and processed from business and market information.



BIC is an operational network of more than 20 experts focused on improving the competitiveness, efficiency, productivity and well-being at work of organisations.

We help our clients to achieve their goals using the competencies in our toolbox:

- knowledge management
- process modelling
- software robotics
- data analytics, artificial intelligence
- operational controls
- digital commerce.

Our activities focus on business collaboration, projects, research, education and business development within our own organisation. We strengthen SAMK's tradition of producing high quality skills for the different needs of business and industry. The Business Intelligence Center BIC is a practical business development partner for companies.





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Research Center for HUMAN FUNCTIONING

The best-functioning workforce is in Satakunta. The Research Center for Human Functioning carries out research projects that approach human functioning, wellbeing, and health from new perspectives.

We support people in their everyday life at home and work, and in caring for themselves and others. The research center responds to the challenges of labour shortage and work wellbeing in Satakunta and provides possible solutions for improving the functioning and wellbeing of the working-age population.



The Research Center for Human Functioning is addressing two key challenges for the vitality of Satakunta: the shrinking labour force and the declining functioning of the population. As people live longer and fewer children are born, the relative size of the working-age population continues to decrease. This is leading to increasing competition for a skilled and prosperous workforce.

We support the working-age population through our three main areas of research:

- Nutrition of the Working-Age
- Mental Health of the Working-Age
- Work and Education-based Immigration

The population's ability to function is one of the main pillars of the economic and social sustainability of society. With a shrinking workforce, we need to find means to help working-age people take care of their wellbeing and remain in employment. Preventing problems and ensuring the availability of a skilled workforce is crucial. In the Research Center for Human Functioning, we work with service providers, the public sector, the third sector and educational organisations.





RESOURCE WISDOM

Resource wisdom creates a competitive advantage in national and international competition now and in the future.

We believe and are working to make Satakunta a leading region for sustainable development in the future. In a resource-wise Satakunta, natural resources are used intelligently and efficiently to meet future needs. The region's businesses and communities work together on innovative solutions that reduce environmental pressures and promote the circular economy.



Resource Wisdom is a developer cluster of around 20 experts. We help our region and its residents, its small and large businesses and other organisations to take small and large, resource-wise steps in their operations.

Our core competences and activities are:

- ecological construction
- renewable energy solutions and energy efficiency
- developing security of supply food chains, and the building products industry and its supporting sectors
- the circular economy.

We work with a variety of businesses, communities, municipalities and other organisations. Practical national and international development projects, cooperation projects, teaching and research, theses and internships are at the core of our activities. We bring together our talented young people and businesses to ensure a resource-wise future for our region.



High quality research at Satakunta University of Applied Sciences

Satakunta University of Applied Sciences, as an industrial university, invests in practical research activities that support the technology industry and business. The research centers support companies in business growth and renewal, as well as in improving competition, efficiency and well-being at work.

SAMK has six research centers: ROBOAI Research and Development Center, Research Center Wander, Center for Tourism Business Development, Maritime Logistics Research Center, Business Intelligence Center BIC and Research Center for Human Functioning. In resource-wise Satakunta, natural resources are used intelligently and efficiently to meet future needs.

[SAMK.FI/RESEARCH](https://www.samk.fi/research)



Satakunta University of Applied Sciences

Satakunnankatu 23 • PL 10001 • 28101 Pori

Direct line for companies +358 2 623 4800