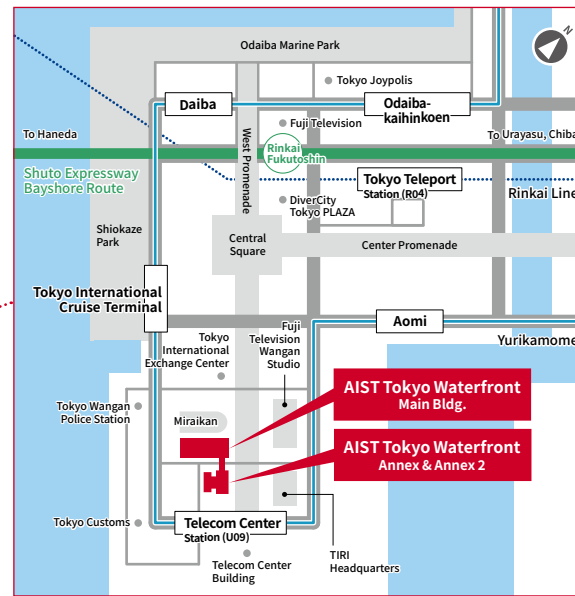
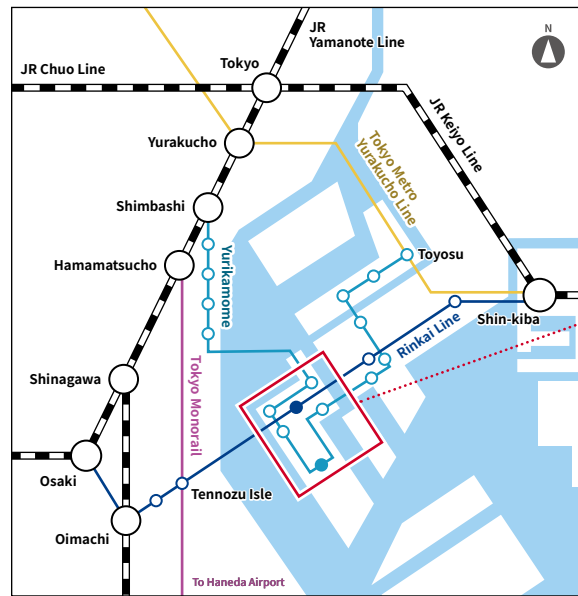


Access



By train

Yurikamome

Approx. 3-minute walk from Telecom Center Station (U09)

Rinkai Line

Approx. 15-minute walk from Tokyo Teleport Station (R04)



Main Bldg.



Annex

Bio-IT Research
Bldg.



Annex 2

Cyber-Physical Systems
Research Facility

NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY

AIST Tokyo Waterfront

AIST Tokyo Waterfront Main Bldg.

2-3-26 Aomi, Koto-ku, Tokyo 135-0064, Japan

TEL +81-3-3599-8001

AIST Tokyo Waterfront Annex (Bio-IT Research Bldg.)

AIST Tokyo Waterfront Annex 2 (Cyber-Physical Systems Research Facility)

2-4-7 Aomi, Koto-ku, Tokyo 135-0064, Japan



Official Website

Toward a Global Research Center with AI & Cyber-Physical Systems at Its Core
https://www.aist.go.jp/waterfront/index_en.html



AIST 25th Anniversary Special Website

Only available in Japanese
<https://www.aist.go.jp/sc/25th/>

2001 to 2026 and Beyond.
AIST 25th Anniversary



TOKYO WATERFRONT

Toward a Global Research Center with AI & Cyber-Physical Systems at Its Core

AIST Tokyo Waterfront, one of the research bases of the National Institute of Advanced Industrial Science and Technology (AIST), was established at Tokyo Academic Park in the waterfront area when AIST was reorganized in 2001. The Bio-IT Research Building and Cyber-Physical Systems (CPS) Research Facility were built in 2005 and 2018, respectively, making it the second-largest research base after AIST Tsukuba.

AIST Tokyo Waterfront vigorously pursues R&D and the social implementation of its outcomes with a strong emphasis on AI and cyber-physical systems, green transformation (GX), and biotechnology.

This is carried out through Integrated Research Center for Advanced Manufacturing, Integrated Research Center for Wellbeing, Global Zero Emission Research Center, Cellular and Molecular Biotechnology Research Institute, Artificial Intelligence Research Center, Intelligent Systems Research Institute, Intelligent Platforms Research Institute, Cyber Physical Security Research Institute, and Global Research and Development Center for Business by Quantum-AI technology (G-QuAT).

Leveraging its convenient location in the Tokyo waterfront area, AIST Tokyo Waterfront plays the role of a platform for building an innovation ecosystem and has become an

international base for research and exchange where numerous stakeholders from industry, academia, government, and overseas convene.

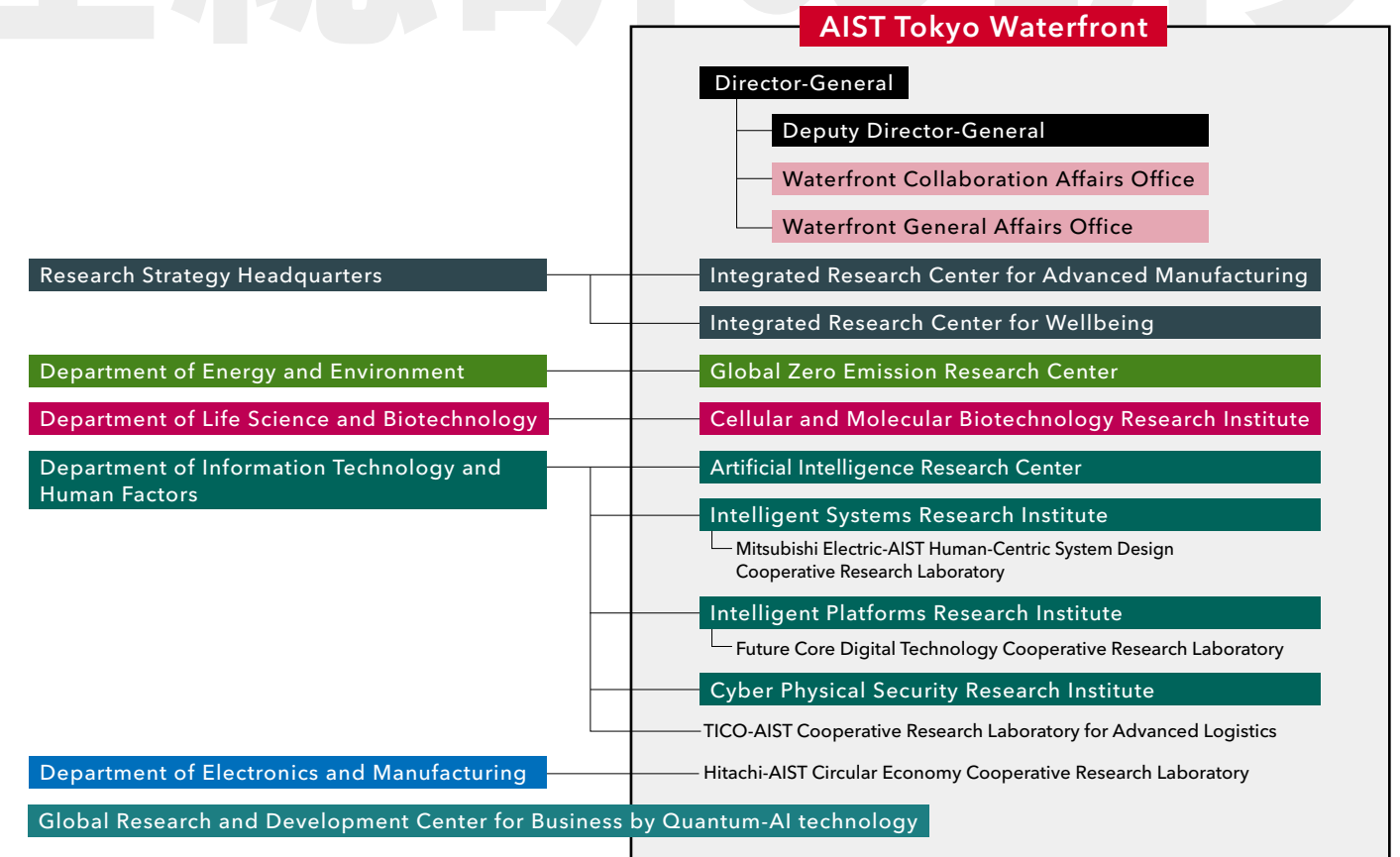
In addition, we have established numerous Collaborative Research Laboratories for promoting large-scale joint research with companies, and AIST Consortia. We are also actively welcoming startups and Technology Research Associations, providing shared facilities, collaborating with neighboring institutions, and conducting public relations activities such as exhibitions of our research results.

Through these activities, we will continue to strive to create innovations that contribute to solving societal problems and enhancing Japan's industrial competitiveness, in line with AIST's mission.

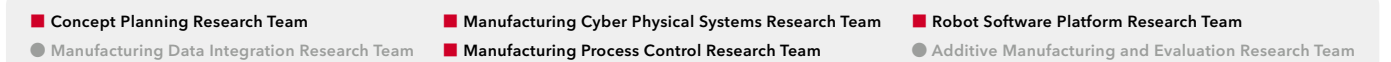


Director-General
AIST Tokyo Waterfront
KAWAI Yoshihiro

Organization Chart of AIST Tokyo Waterfront



Integrated Research Center for Advanced Manufacturing



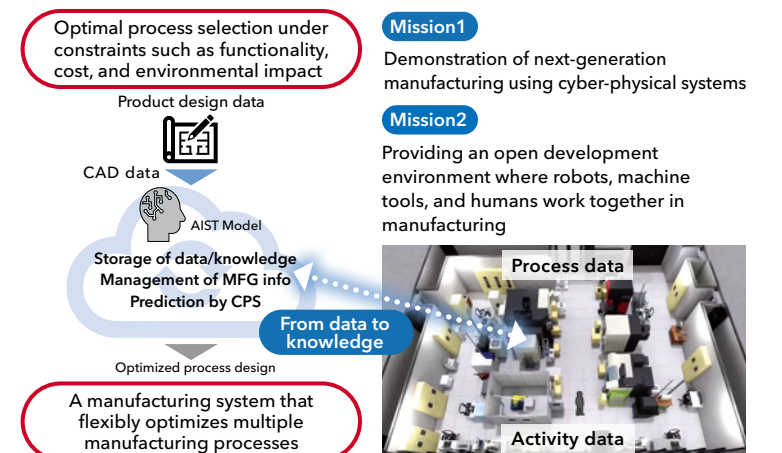
Development of a data-linked flexible manufacturing system that improves labor productivity

We will develop a manufacturing knowledge base and create a next-generation manufacturing testbed that makes full use of AI technology, DX technology, and robotics technology enhanced by that knowledge base. Researchers in the manufacturing field, as well as researchers in robotics for transportation handling and changeovers, will participate in this initiative. Also, by utilizing various sensors, robots, machine tools, AI, cyber-physical systems (CPS), etc., we will build a system that allows a small number of people to produce a variety of products.



We are promoting research and facility development to make this facility a "showcase of technology." We will collaborate with universities, public research institutes, and private companies from the system construction stage, aiming to disseminate the technologies we develop, including through human resource development using this facility.

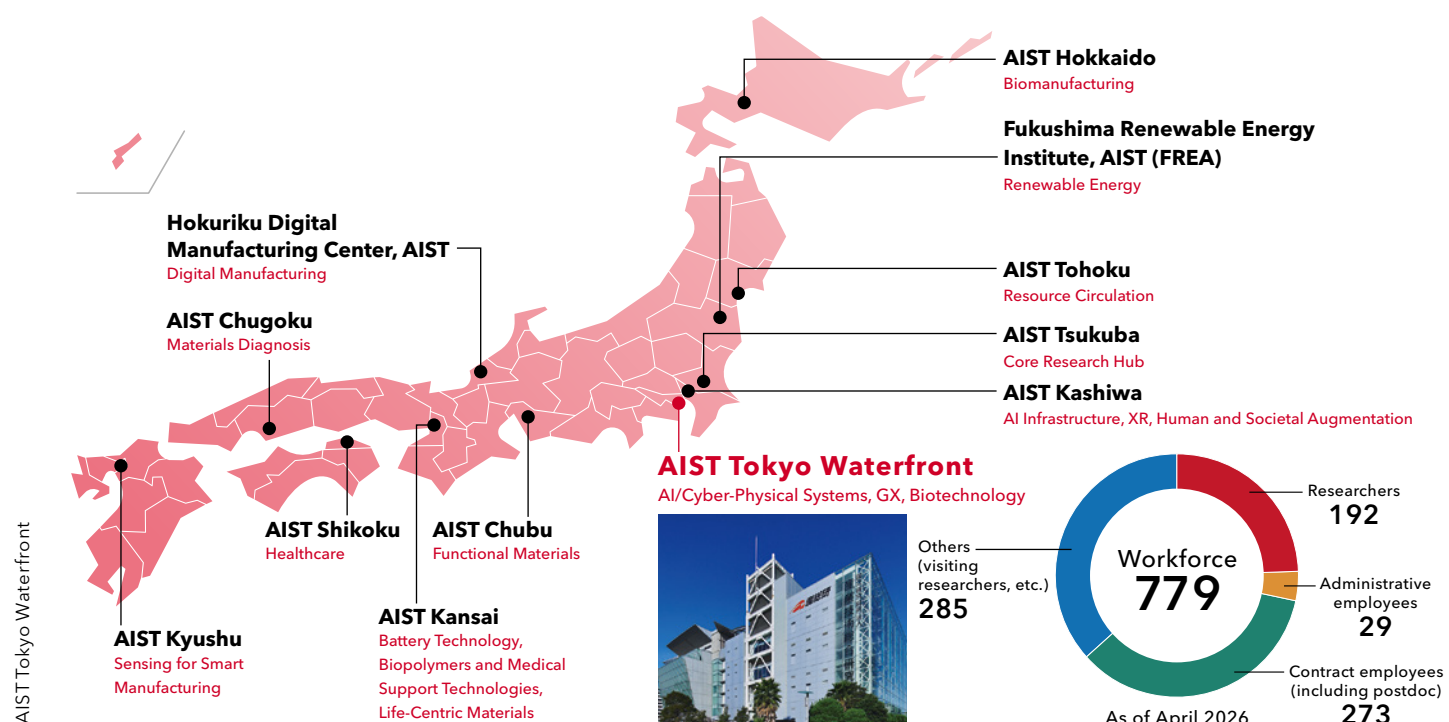
Director **MASUI Keiji**



<https://unit.aist.go.jp/ircam/en/>



Research Bases of AIST



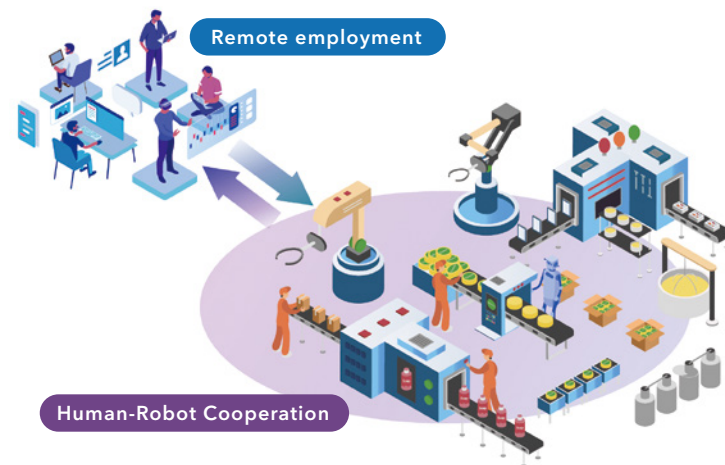
Integrated Research Center for Wellbeing

- QoW Assessment and Intervention Research Team
- Human State Design Research Team
- Social Implementation of Kinetic Informational Dynamics Research Team
- Ubiquitous Sensing & Human Information Research Team
- Human-Evolving AI & Robotics Research Team
- Collaborative Intelligent Safety Research Team

■ Located at AIST Tokyo Waterfront

Toward creating new markets through quantitative evaluation and standardization of wellbeing

We will categorize the work into two types: physical work employment and informational work employment. For each type, we will demonstrate quantitative measurement techniques and control systems to improve wellbeing. In the case of physical work, we will demonstrate the reduction of physical workload through workload measurement, human-machine coordination using robots, and remote work systems. For informational work, we will develop technologies for the quantitative measurement of psychological load and for mitigating that load through environmental control.



The Consortium for Human-Centric Manufacturing Innovation was established as a framework for industry-academia collaboration to promote leading research in collaborative fields and business matching among member companies to solve labor shortages.

Director **TANIKAWA Tamio**

<https://unit.aist.go.jp/ircwb/en/>



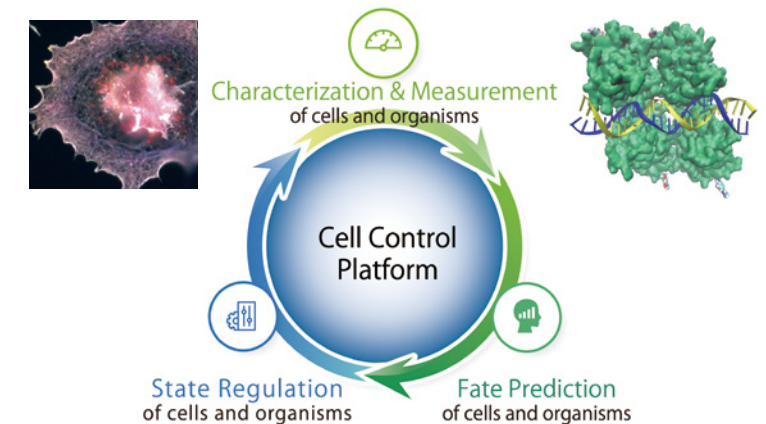
Cellular and Molecular Biotechnology Research Institute

- Molecular and Cellular Glycoproteomics Research Group
- Multicellular System Regulation Research Group
- Biological Data Science Research Group
- AIST-INDIA Diverse Assets & Applications International Laboratory
- Multimodal Spatial Molecular Imaging Research Group
- Cell Regulation Materials Research Group
- Microphysiological System Research Group
- Cell Function Design Research Group
- Cell Dynamics System Research Group
- Cellular Presymptomatic Engineering Research Group
- Biosynthetic Systems Diversity Research Group

■ Located at AIST Tokyo Waterfront

Advancing a healthy and long-lived society through understanding and control of cellular and biological functions

We promote the development of the following three advanced technologies: (1) high-precision measurement and analysis of cellular and biological system properties; (2) high-precision diagnosis and prediction of disease onset; and (3) controlling cellular and biological system functions, and aim to establish an integrated “Cell Control Platform” by linking them, thereby contributing to a healthy and long-lived society.



Cellular and Molecular Biotechnology Research Institute (CMBRI) aims to develop and commercialize technologies that contribute to the fields from drug discovery to medicine and healthcare by focusing on the analysis of cellular molecular mechanisms.

Director **KOMATSU Yasuo**

https://unit.aist.go.jp/cmb5/index_en.html



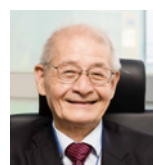
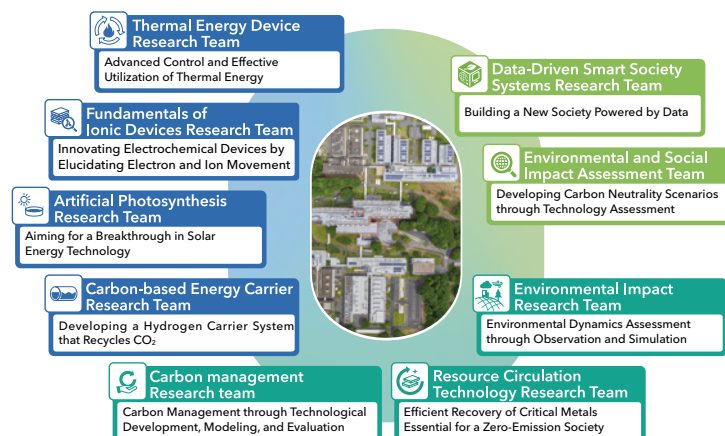
Global Zero Emission Research Center (GZR)

- Headquarters
- Artificial Photosynthesis Research Team
- Thermal Energy Device Research Team
- Fundamentals of Ionic Devices Research Team
- Resource Circulation Technology Research Team
- Carbon-based Energy Carrier Research Team
- Carbon Management Research Team
- Data-Driven Smart Society Systems Research Team
- Environmental Impact Research Team
- Environmental and Social Impact Assessment Team

■ Located at AIST Tokyo Waterfront

Pursuing R&D to achieve carbon neutrality

We are eager to promote collaboration both globally and domestically. One of our collaborations is realized through RD20, which is an international conference attended by leaders of G20 members in clean energy research and technology. We are also active at the Tokyo Zero-emission Innovation Bay, which is a council that aims to develop the Tokyo Bay area into an innovation zone for zero-emission technologies. GZR also serves as its secretariat.



GZR was established in response to the government's strategy and has been researching innovative technologies aimed at achieving carbon neutrality through international collaboration. Addressing global environmental challenges is explicitly identified as a key objective in AIST's 6th Medium-to-Long-Term Plan. Moving forward, GZR will continue to promote social implementation and foster international cooperation.

Director **YOSHINO Akira**

<https://www.gzr.aist.go.jp/en/>



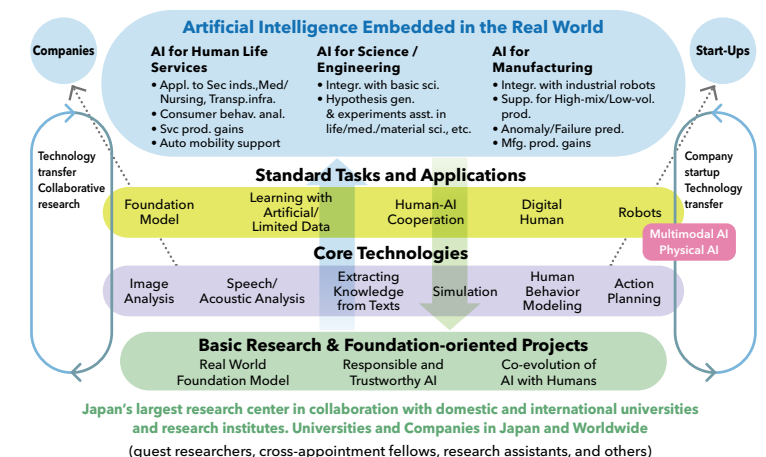
Artificial Intelligence Research Center

- Machine Learning Research Team
- Computational Omics Research Team
- Social Intelligence Research Team
- Digital Human Research Team
- Intelligent Media Processing Research Team
- Computer Vision Research Team
- Living Activity Modeling Research Team
- Language and Information Research Team
- Human-AI Collaborative Mechanism Research Team
- Agentic AI Research Team
- Embodied AI Research Team

■ Located at AIST Tokyo Waterfront

Toward a comfortable, safe, and secure society through AI aligned with people's values

Artificial Intelligence Research Center (AIRC) is engaged in research and development that contributes to “scientific applications” including materials science, drug discovery, and earth science; “understandable AI” that clarifies the basis for AI decisions; and “trust building” in AI by ensuring its safety and deepening mutual understanding with humans. We conduct research to strengthen industrial competitiveness and realize a prosperous society by establishing partnerships with major research institutions in Japan and abroad, and connecting the academic and industrial worlds through joint research.



Through close, ongoing connections with other research institutions, industry, and academia, both in Japan and abroad, AIRC is constantly striving to deepen its ties with these partners, in order to work together to find solutions to the myriad challenges faced by today's society.

Director **KATAGIRI Yasuhiro**

<https://www.airc.aist.go.jp/en/>

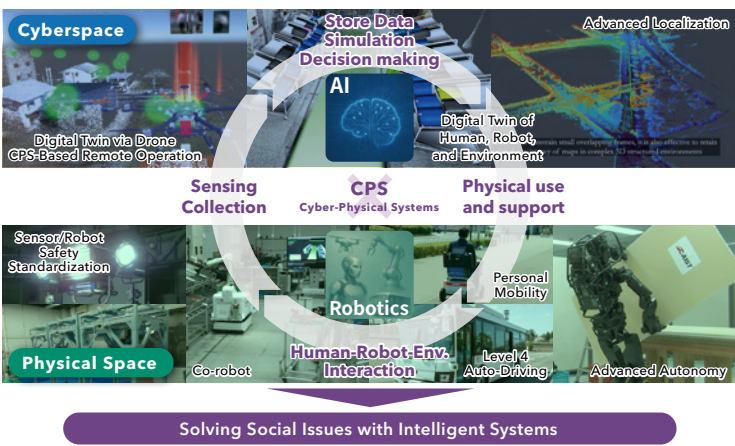


Intelligent Systems Research Institute

- Task-Intelligent Robotics Research Group ● Field Robotics Research Group ● Trustworthy Robotics Research Group ● CNRS-AIST JRL (Joint Robotics Laboratory), IRL3218
● Smart Mobility Research Group ■ Mitsubishi Electric-AIST Human-Centric System Design Cooperative Research Laboratory
- Located at AIST Tokyo Waterfront

Solving Japan's challenges with robotics and AI technologies

We promote R&D of "Intelligent Systems" that integrate robotics, AI, advanced sensing, and dependable control. These systems autonomously recognize people and environments in real time and respond accordingly. Our focus includes next-generation robotics and automation: intelligent task-performing robots, teleoperated systems, humanoids, drones, personal mobility, and autonomous transport services, as well as technologies that enhance their safety and reliability.



Based in Tsukuba and Tokyo, we collaborate with three Integrated Research Centers—Wellbeing, Advanced Manufacturing, and Resilient Infrastructure—to apply core technologies to real-world challenges and help build a sustainable, resilient, and vibrant future society.

Director **ANDO Noriaki**

https://unit.aist.go.jp/isri/index_en.html

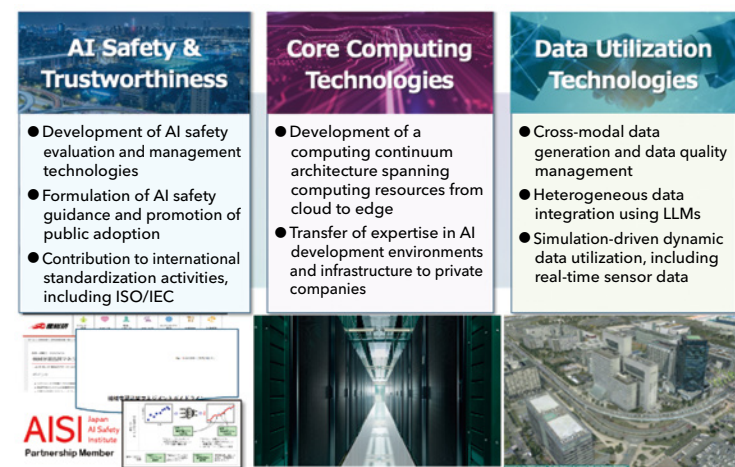


Intelligent Platforms Research Institute

- Continuum Computing Architecture Research Group ■ Continuum Computing Trustworthiness Research Group ■ Geoinformation Service Research Group
■ Data Platform Research Group ■ Future Core Digital Technology Cooperative Research Laboratory
- Located at AIST Tokyo Waterfront

Promoting trustworthy AI technologies through scalable digital infrastructure and robust safety management

To accelerate the social implementation of trustworthy AI, we are conducting R&D in the following areas: (1) assessing and improving AI system safety, fairness, and explainability; (2) advancing computing infrastructures from cloud to edge for efficient and secure data processing; and (3) enabling flexible cross-domain data platforms through generative AI. We are also contributing to developing AI safety guidelines and international standards.



We aim to build foundational technologies that underpin the data value chain and facilitate the responsible and impactful deployment of trustworthy AI across cyber-physical systems, including smart cities and communities.

Director **MURAKAWA Masahiro**

<https://www.ipri.aist.go.jp/en/>

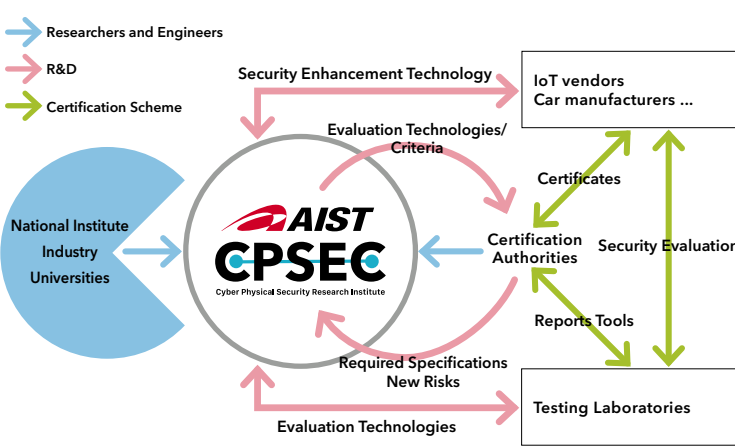


Cyber Physical Security Research Institute

- Security Assurance Scheme Research Group ■ Advanced Cryptography Research Group ■ Secure Platform Research Group ■ Hardware Security Research Group
● Autonomous System Security Research Group ● SEI-AIST Cyber Security Collaborative Research Laboratory
- Located at AIST Tokyo Waterfront

Toward the realization of secure cyber-physical systems

Cyber Physical Security Research Institute (CPSEC) brings together researchers and engineers from companies, universities, testing/evaluation organizations, and other organizations to conduct technical research necessary for cyber-physical security, develop technologies that make security measurable, and provide technical support for security evaluation systems. Throughout these activities, we aim to provide a forum for the continuous accumulation of the latest technologies and knowledge.



CPSEC aims to contribute to economic development and solving social issues by studying security enhancement technologies for integrating cyberspace and physical space.

Director **WATANABE Hajime**

https://www.cpsec.aist.go.jp/index_en.html

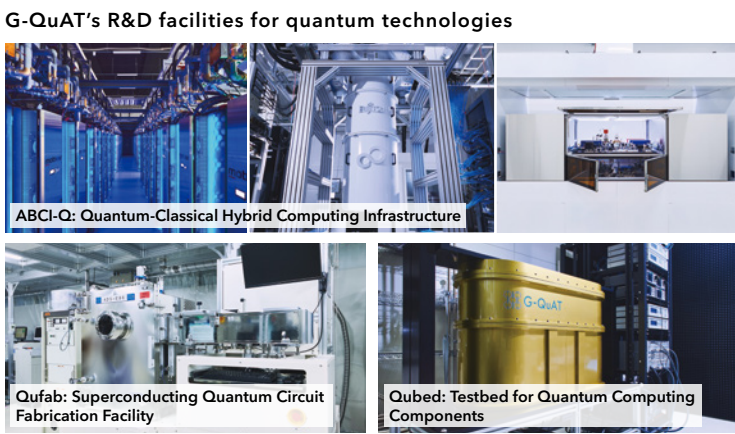


Global Research and Development Center for Business by Quantum-AI technology (G-QuAT)

- Quantum-AI Cloud Research Team ● Quantum Application Team ● Quantum Sensing Research Team ● Quantum Photonics Hardware Research Team
● Quantum Hardware Components R&D Team ● Quantum Device Measurement Team ● Quantum Device Research Team ● Quantum Hardware System Research Team
● Quantum Control Circuit Research Team
- Located at AIST Tokyo Waterfront

G-QuAT aims to build a global business ecosystem for quantum technology.

G-QuAT engages in strategic initiatives spanning international collaboration, policy alignment, industrial and startup support, supply chain development, intelligence, standardization, incubation, and innovation ecosystem development. These efforts aim to foster global partnerships in quantum technology, create markets and startups, build supply chains, and strengthen economic security.



We are engaged in creating use cases utilizing quantum computers, evaluating and standardizing high-quality components and materials, and advancing the large-scale integration of qubits. Through these activities, we strive to solve societal challenges, create new markets, and build a global business ecosystem.

Director **MASU Kazuya**

https://unit.aist.go.jp/g-quat/index_en.html



Initiatives for Industry-Academia-Government Collaboration and Open Innovation

We are promoting open innovation by utilizing various industry-academia-government collaboration programs, including technology consulting, technical training, joint research, and commissioned research.

Cooperative Research Laboratory

To conduct research and development tailored to the specific needs of companies, we have established collaborative research laboratories within AIST, named after our partner companies. Through these labs, we aim to closely collaborate toward the commercialization and social implementation of research outcomes.

TICO-AIST Cooperative Research Laboratory for Advanced Logistics

Realizing Aesthetic Logistics Solutions
Powered by AI and Robotics



https://unit.aist.go.jp/tico-al2022/index_en.html



Mitsubishi Electric-AIST Human-Centric System Design Cooperative Research Laboratory

Designing a Society
for Personal Wellbeing

<https://unit.aist.go.jp/isri/en/groups/index.html#mahsdc>



Future Core Digital Technology Cooperative Research Laboratory

Realization of an Interactive CPS

世界をいい方向へ。
全速力で。



DX with SoftBank

<https://www.ipri.aist.go.jp/fcdtctrl/en/>



Hitachi-AIST Circular Economy Cooperative Research Laboratory

Toward the Realization of a
Circular Economy Society



<https://unit.aist.go.jp/hitachi-cecrl/en/>



Consortium

AIST consortium is a thematic research group operated by AIST to support industry-academia-government collaboration activities, promote the utilization of research outcomes, and facilitate the collection and dissemination of information. The operational costs of the group are covered by its members, including companies and universities.

AI Technology Consortium (AITeC)

We provide a platform for technical exchange and collaborative demonstrations with the aim of promoting DX through AI implementation, developing use cases, and disseminating outcomes. PoC (Proof of Concept) projects, seminars and other activities are conducted by approximately 130 diverse companies, organizations, and regional branches, as well as 22 working groups.

Consortium for Human-Centric Manufacturing Innovation (HCMI)

In collaboration with companies, universities, and other institutions, we will take the global lead in promoting foundational technologies and social implementation measures for a new human-centered, cooperative system between people and machines. This initiative will serve as a Japanese model for achieving SDG Goal 8: "Decent Work and Economic Growth."

Digital Human Technology Consortium

We are advancing activities related to digital human technologies, including the introduction of the latest technologies, information exchange, standardization efforts, consideration of interoperable data formats, early distribution of data, and training sessions on development software.

Tokyo Zero-emission Innovation Bay

By promoting collaboration in research and development, demonstration, and business among companies, universities, research institutions, and government agencies located in the Tokyo Bay area, we aim to establish the Tokyo Bay area as a world-leading innovation hub for zero-emission technologies.

Monodzukuri Innovation Consortium (MOCO)

To create next-generation manufacturing in the machinery industry, stakeholders from industry, academia, and government will come together to share information and engage in discussions. Through this collaboration, we aim to identify common foundational technological challenges and propose solutions, thereby contributing to strengthening industrial competitiveness in the manufacturing sector.

AI Quality Management Initiative (AIQMI)

We aim to build a globally competitive, Japan-originated AI ecosystem through activities such as gathering and digesting information on AI regulations, various guidelines, international standards, and technical developments; solving quality management challenges encountered in AI business execution; and establishing a quality management framework.

Human-Centered AI LifeTech Consortium (HAIL)

This consortium brings together developers, users, and researchers to discuss the safety and reliability of AI-enabled monitoring sensors from a human-centered perspective, and develops evaluation frameworks while promoting technical and social consensus for real-world deployment.

Creative Minimal Fab (CMF)

Minimal Fab is a concept developed and demonstrated by AIST that aims to simplify semiconductor manufacturing processes as much as possible, enabling efficient and flexible production. Unlike conventional large-scale semiconductor manufacturing in cleanrooms, Minimal Fab allows for rapid production using compact systems placed in standard room environments. At AIST Tokyo Waterfront, we have installed Minimal Fab equipment for half-inch wafers, realized through localized clean technology, along with analysis and evaluation devices. These facilities are open to the public as shared resources available for commercial use. If you are interested in using them, please feel free to contact us.*

*We envision the use of this facility for hands-on training and education in various semiconductor and MEMS technologies, as well as for the fabrication of devices with pattern sizes of 1 μm or larger. However, we also welcome inquiries regarding other potential uses, so please feel free to contact us.



<https://unit.aist.go.jp/ircam/cmfi/> (Japanese)



Life Technology Studio, AIST Tokyo Waterfront

At the "Life Technology Studio, AIST Tokyo Waterfront," we present research outcomes from AIST, with a focus on those developed at AIST Tokyo Waterfront. The facility welcomes a wide range of visitors, from business professionals to the general public. By experiencing world-class innovations and innovative technologies with the potential to transform society, we hope visitors will gain new knowledge and insights—and be inspired to engage with AIST.



Visits are by appointment only
<https://www.aist.go.jp/waterfront/en/exhibition/>



For inquiries, please contact the AIST Tokyo Waterfront Collaboration Affairs Office.

sgk-wf-ml@aist.go.jp