

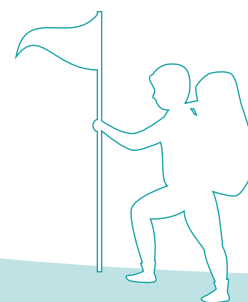


Dive into new challenges, create the future beyond our imagination

# CRONOS

*Cutting-edge Research and Development  
on Information & Communication Sciences*

Strategic Basic Research Programs **2025»26**





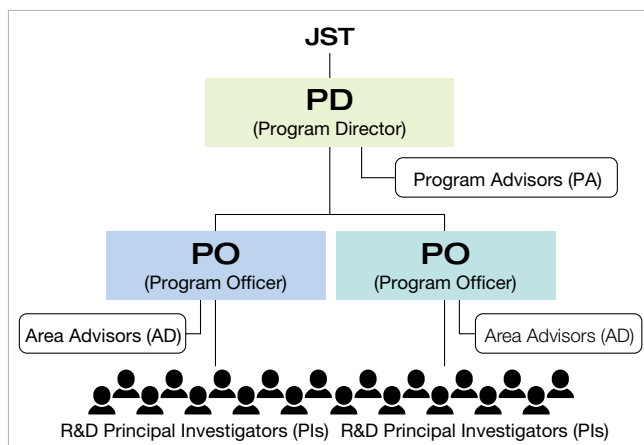
## R&D program aims at advancement of Japan's information and communication technology through Grand Challenges

### Overview

This program aims to contribute to an advancement of Japan's information and communication sciences through developing innovative technologies in the field and fostering researchers with unique ideas and conceptual skills. It sets challenging goals ("Grand Challenges") with the ultimate objective of bringing about

paradigm shifts in information and communication sciences in promoting research. With the Grand Challenges and a flexible scheme that enables integration of basic and applied research, we promote research that leads to a transformation of society, and target to achieve proofs of concept (POC).

### Management system



#### ■ Program Director (PD)

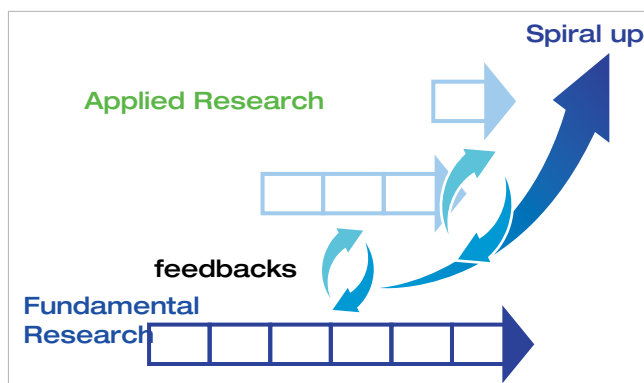


SHINOHARA Hiromichi  
Executive Adviser  
NTT, Inc.

#### ■ Program Advisors (PA)

TOKUDA Hideyuki	President, NICT
HAGIMOTO Kazuo	Principal Researcher, NICT
MORIKAWA Hiroyuki	Professor, Graduate School of Engineering, The University of Tokyo
YASUURA Hiroto	Vice Director-General, NII

### R&D scheme



#### [Fundamental Research]

- In fundamental research, we will promote the creation of results that will create top-level technological breakthroughs internationally for the Grand Challenge and foster advanced research personnel.

#### [Applied Research]

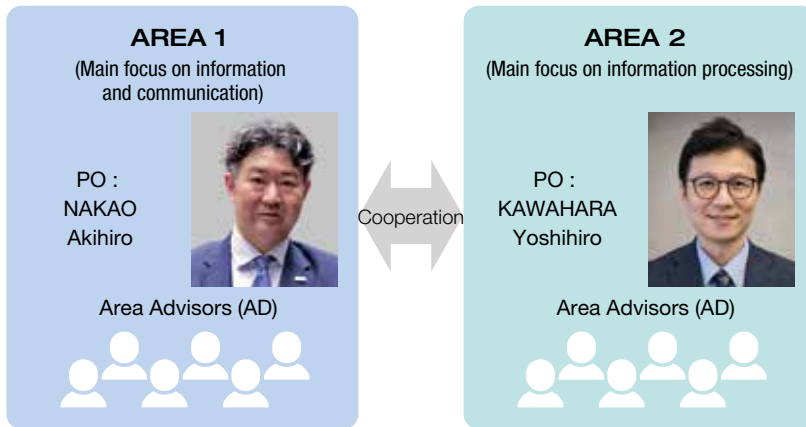
- The selected R&D principal investigator (PI) will offer a distinct plan for a POC to the PO. If the plan is approved, further funding will be allocated, and the plan will be put into action.
- Through software development based on basic theory, theoretical verification using actual data, and demonstration testing in testbeds, the project aims to produce results that, at the end of the research, can be used as a bridge to Ministry of Internal Affairs and Communications (MIC)/NICT projects, promote the creation of university-launched ventures, and lead to research by companies and other entities.

**R&D period (overall)**

5.5 years (within 6th years)

**Total R&D budgets (overall)**

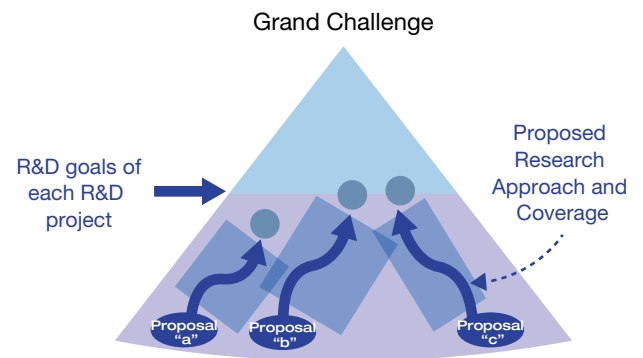
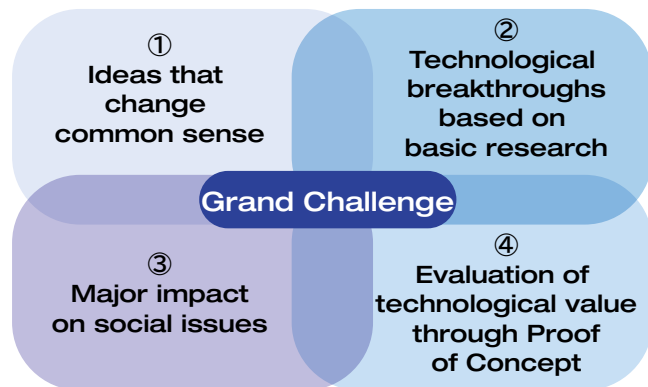
Approx. 220-300 million yen



This program covers a wide range of technical areas in information and communication sciences. Issues that cannot be resolved by technological innovation based on conventional common sense or by innovation in specific technical areas are emerging as technological needs, becoming more diverse and complicated. Through efforts to achieve the Grand Challenges, this program aims to promote collaboration and integration between different technical areas, including personnel exchanges. As shown in the left figure, two areas have been defined, one focusing on the information and communication area and the other on the information processing area, and the POs manage each area in cooperation with each other.

### ■ Concept of Grand Challenge

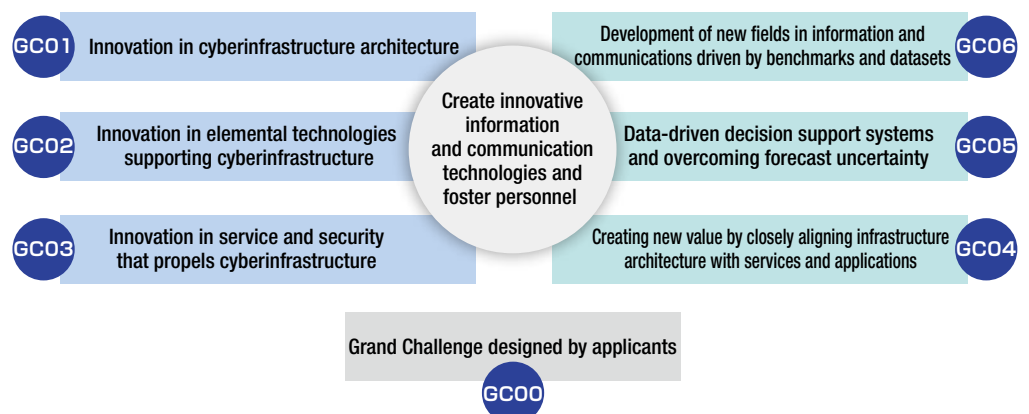
The Grand Challenges include a wide range of technical area. Through efforts to achieve the Grand Challenges, the program aims to create innovative information and communication technologies in various research approaches and to foster advanced research personnel.



The goals of the Grand Challenges are big pictures that are expected to be realized in the future society. The applicant should specifically describe in the research and development proposal what range, what, and how far, and what approach to promote within the research and development period for the goals indicated by the Grand Challenge.

### ■ Grand Challenges for the 2024 Application Period

The applicant selects the Grand Challenge to challenge on and submit R&D proposals to contribute to it. Alternatively, if the applicant wishes to challenge on something other than the Grand Challenges designed by JST, it is also possible for the applicant to design the Grand Challenge itself.





## AREA 1 (Main focus on information and communication)



### Goals of the Area

In this Area, we aim to establish innovative research and development that contributes specifically to the evolution and advancement of information and communication. By integrating information communication and information science, we strive to realize “the next-generation cyber infrastructure” that forms the foundation of society.

We consider not only focusing on the academic evolution but also constantly being aware of contribution to the creation of future society is the key. Our goal is to promote research and development that includes fostering of human resources in the information and communication field: we anticipate them to contribute to a sustainable development of information and communication technology that serves as an essential infrastructure in the society.

### Program Officer (PO)

#### NAKAO Akihiro

Professor,  
Graduate School of Engineering,  
The University of Tokyo

### Area Advisors (AD)

<b>SUGIYAMA Masashi</b>	Director, Center for Advanced Intelligence Project, RIKEN/ Professor, Graduate School of Frontier Sciences, The University of Tokyo
<b>TODE Hideki</b>	Professor, Graduate School of Informatics, Osaka Metropolitan University
<b>TOYOSHIMA Morio</b>	Director General, Wireless Networks Research Center, NICT
<b>HARADA Hiroshi</b>	Professor, Graduate School of Informatics, Kyoto University
<b>FUJISHIMA Minoru</b>	Professor, Graduate School of Advanced Science and Engineering, Hiroshima University
<b>MORI Tatsuya</b>	Professor, Faculty of Science and Engineering, Waseda University
<b>YAMANAKA Naoaki</b>	Project Professor, Shin-Kawasaki (K2) Town Campus, Keio University
<b>WAKIKAWA Ryuji</b>	Vice President, Head of Advanced Technology Division, SoftBank Corp.

### Projects Selected for 2024

#### Development of Ultimate Wireless Systems Beyond Classical Design

##### ISHIBASHI Koji

Professor, Advanced Wireless Communication research Center, University of Electro-Communications



Our project aims to break the boundaries of classical wireless system design, which relies on simplifications such as statistical channel modeling and interference approximation, by leveraging emerging technologies like machine learning, quantum computing, and Bayesian inference. It seeks to resolve issues related to reliability, latency, and throughput, while addressing spectrum scarcity through fully optimized virtual cells composed of distributed antennas, tailored to user demands.

#### Body-linked Interaction Platform

##### KATSURA Seiichiro

Professor, Faculty of Science and Technology, Keio University



In this research, we will develop a fundamental technology that uses functional electrical stimulation as an interface to attain an interaction called "Body Link" that connects bodies, and create new forms of communication and services through information and communications. In addition to the conventional multimedia data, the "Body Link" will enable new experiences that can be shared by connecting the body with others in remote locations.



### An Internet-scale Turing Machine and its Applications

KOIZUMI Yuki

Associate Professor, Graduate School of Information Science and Technology, The University of Osaka



The Internet, originally designed as a communication system, has evolved into a hybrid system that accommodates both communication and computing. However, this process hinders further architectural evolutions. This project aims to realize both evolvable networking and computing by realizing an Internet-scale computing platform that leverages in-network computing technologies.

### Research and development of low-latency broadband space backbone

SHINADA Satoshi

Research Manager, Network Research Institute, National Institute of Information and Communications Technology



To realize a low-latency inter-satellite optical network in low earth orbit, spatial optical transmission and switching technologies for LEO satellites will be developed. And a novel optical networking technology that provides seamless end-to-end connections with adaptively controlling TN and NTN domains will be developed. Furthermore, an optical communication system integrated with these technologies will be demonstrated in an optical testbed that emulates long-distance inter-satellite optical links.

### Pursuing the Ultimate Performance of Vacuum Photo-Transistors and Establishing a basis for Ultra-High-Capacity Seamless Optical-Wireless Networks

TAKIGAWA Ryo

Associate Professor, Graduate School and Faculty of Information Science and Electrical Engineering, Kyushu University



This research aims to reduce the capacitance of the electron transport layer in semiconductors by developing vacuum phototransistors, addressing the performance limits of optoelectric conversion devices. This technology will enable phased array functionality crucial for wireless communications and establish a framework for the seamless connection of ultra-high-capacity data from optical to wireless, contributing to the development of future talent.

### Frequency/phase-synchronized quantum network

TAKEOKA Masahiro

Professor, Faculty of Science and Technology, Keio University

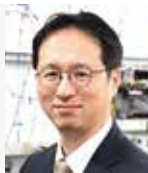


Frequency/phase-synchronized quantum network will enable new paradigm of quantum communication and B5G/6G, including ultrastable clock distribution and wide area quantum networks. This project aims its realization by employing new optical/quantum technologies, such as hollow core fibers, optical frequency combs, and novel quantum optical sources.

### Direct connection of THz wireless I/O with optical signal processors using microcombs

TANABE Takasumi

Professor, Faculty of Science and Technology, Keio University



Research on photonic AI accelerators is attracting attention for their high energy efficiency and speed. However, electrical interfaces remain a bottleneck. This study aims to develop a technology that directly converts optical signals into 300 GHz terahertz wireless signals, enabling next-generation systems to seamlessly integrate optical signal processors and high-speed terahertz transmitters.

### Democratizing skill communication technologies based on mechanisms of brain and body

FURUYA Shinichi

Research Director, Tokyo Research, Sony Computer Science Laboratories Inc.



Our project aims to enable people to teach and learn skills from each other, even when they're far apart, through making synergy between physical science, informatics, and neuroscience. To this aim, we perform the three bodies of research: (1) using commodity sensors to estimate skills, (2) developing technologies that enhance skill acquisition, and (3) improving teaching quality by embodying learners' skills multimodally.

### Ultra-high-speed In-Network Computing Platform

MARUYAMA Mitsuru

Professor, Faculty of Informatics, Kanagawa Institute of Technology



A novel processing method for ultra-high-speed stream data is proposed, achieving stability and immediacy through autonomous coordination and in-network computing, where network and computing resources are tightly integrated. This approach provides a Tbps-class network for ultra-high-definition metaverse and robotics. Additionally, application experiments will validate this architecture, promoting standardization for social implementation.

### Target-Adaptive Security Infrastructure

#### ISOBE Takanori

Professor, Graduate School of Information Science and Technology, The University of Osaka



We challenge the conventional principle that encryption and decryption must share equal costs and always require long-term security. By designing them asymmetrically, powerful servers can offload edge tasks and cut computation. When short-term protection suffices, we adjust security dynamically to reduce costs. This paves the way for all devices and services to enjoy strong security without cost concerns for next-generation cyber infrastructure.

### Generative Communication by Learned Compression and Generative AI

#### KATTO Jiro

Professor, Faculty of Science and Engineering, Waseda University



We try to develop "generative communication" framework by integrating deep learning-based data compression ("learned compression") and generative AI. In the basic research, we focus on learned compression, content generation, system implementation, and field experiments. In the advanced research, we collaborate with outside organizations towards deployment of generative communication and international standardization.

### Future Cyber Infrastructure Architecture Based on Optical Total Disaggregation

#### MIZUTANI Kenji

Team Leader, Photonics-Electronics Integration Research Center, National Institute of Advanced Industrial Science and Technology



To realize "Optical Total Disaggregation" for future cyber infrastructure, completely disaggregating computing and communication resources and enabling direct and flexible connections between computing resources via optical paths. To achieve this, we are researching and developing (1) "all-scale optical data flow technology" and (2) "resource management technology for optical total disaggregation".

### Full-body Wireless Power and Data Networking

#### YOKOTA Tomoyuki

Associate Professor, Graduate School of Engineering, The University of Tokyo



Humans' surroundings are not ideal for wireless networking. However, continuous biosignal measurement in daily life needs wireless power and data method for skin devices. Our research aims to develop a "full-body wireless communication and power clothing" that embeds safe, efficient, and large-area coils and transmission lines into the daily textiles, in addition to its wireless protocol, building an wireless data and power infrastructure for multiple skin devices across the body.

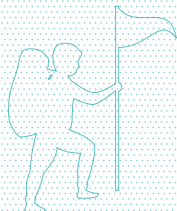
### Digital Cybernetics: Towards Next-Generation Communication Architecture

#### WADAYAMA Tadashi

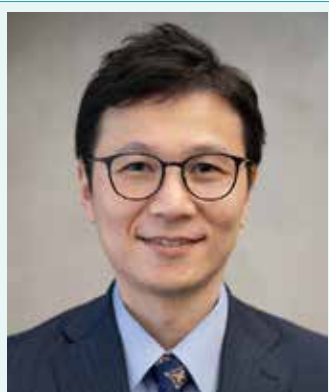
Professor, Graduate School of Engineering, Nagoya Institute of Technology



AI agents are rapidly transforming communication technology. This research realizes "post-Shannon communication" supporting autonomous, adaptive, and robust large-scale AI systems. We develop foundational technologies—goal-oriented communication, ultra-large-scale coding, digital homeostasis, physics-embedded signal processing, and dual-process learning—to create next-generation communication architecture.



## AREA 2 (Main focus on information processing)



### Goals of the Area

In this Area, we aim to promote research and development in which mutually influential relationship between technology and applications paves the way for a new era of information and communication. Creating new services, through technological innovations in information and communication, that play a role as a driving force for the next-generation information and communication infrastructure is the key to accomplish this objective. We set goals that resonate with diverse stakeholders and encourage collaborative efforts, and we propel research and development whose outcomes become platform or foundational technologies that leads to the establishment of communities and the creation of multiple applications.

### Program Officer (PO)

#### KAWAHARA Yoshihiro

Professor,  
Graduate School of Engineering,  
The University of Tokyo

### Area Advisors (AD)

AMANO Hideharu	Project Researcher, Systems Design Lab, Graduate School of Engineering, The University of Tokyo
OKABE Yasuo	Professor, Academic Center for Computing and Media Studies, Kyoto University
ONIZUKA Makoto	Professor, Graduate School of Information Science and Technology, The University of Osaka
SAWADA Hiroshi	Senior Distinguished Researcher, Communication Science Laboratories, NTT, Inc.
TAKEDA Akiko	Professor, Graduate School of Information Science and Technology, The University of Tokyo
TSUBOUCHI Kota	Senior Chief Researcher, LY Research, LY Corporation
MAEKAWA Takuya	Professor, Institute for Advanced Co-Creation Studies / Graduate School of Information Science and Technology, The University of Osaka
YOKOTA Rio	Professor, Institute of Integrated Research, Supercomputing Research Center, Institute of Science Tokyo

### Projects Selected for 2024

#### Innovative Wireless Communication Systems through Wireless-Optical Fusion

##### IIZUKA Tetsuya

Professor, Graduate School of Engineering,  
The University of Tokyo



We propose a wideband wireless receiver architecture that utilizes optical circuits for information processing, targeting 6G/7G communication standards. By leveraging a new AI inference engine called an optical neural network, we aim to create a new architecture that performs decoding in the optical analog domain. This will be achieved through interdisciplinary collaboration among experts in integrated circuits, optical circuits, and optical devices.

#### Developing Algorithmic Methods for Fair Assignment and Agreement in Autonomous Decentralized Environments

##### IZUMI Taisuke

Professor, Graduate School of Information Science and Technology, The University of Osaka



A wide variety of future applications and services in cyberspace are inherently autonomous and decentralized, and it is one of the central requirements to manage them with guaranteeing safety and fairness of users. We particularly aim to developing algorithms for fair assignment and agreement in autonomous decentralized environments. The goal of the project is to establish the theoretical foundations of fair assignment and agreement which can address the divergent behavior of autonomous decentralized systems like as user selfishness and network dynamics.

### Body-verse: Creation of an Interaction Platform between Humans and Internal Organs

#### INAMI Masahiko

Professor, Research Center for Advanced Science and Technology, The University of Tokyo



Building on the close interaction between the brain and the gut, we aim to expand the field of information science and interaction. By collaborating with leading researchers in the areas of internal organs, oral and interoceptive sensations, organoids, and biosensors, as well as experts in informatics, we develop the information platform 'Body-verse,' which facilitates interaction with the internal world centered on the internal organs.

### Evolving Literal Communication

#### UCHIDA Seiichi

Professor, Graduate School and Faculty of Information Science and Electrical Engineering, Kyushu University



Text-based communication relies on characters, and these characters have the potential to be further transformed, leading to new forms of communication. In our research project, we aim to explore various topics related to the innovation of characters along four key axes: "enriching character representation," "securing characters," "personalizing characters," and "liberating characters."

### Ultra-Brain Neuromorphic by Material-Device-System Co-Research

#### KIMURA Mutsumi

Professor, Information and Communication Engineering, Ryukoku University



Ultra-brain neuromorphic systems will be developed by material-device-system co-research, especially, transformers by memristor and spiking principle. Enormous power consumption for big data analysis and data communication in Society 5.0 will be reduced to 1/100. Japanese superior materials and production technologies will solve the disadvantages of integration, systems, and applications and realize the last great turnaround in electronics.

### Inclusive Robotic Foundation Model with Unstandardized Data

#### KOBAYASHI Taisuke

Assistant Professor, Principles of Informatics Research Division, National Institute of Informatics



This research aims to develop an "inclusive robot foundation model" that can effectively utilize unstandardized data. Specifically, we will develop and train a new model that freely selects the teaching method of various tasks from humans to robots with rich individuality, accepts as input the various modalities along with verbal instructions, and outputs different optimal motion commands through processing that explicitly reflects its various body structures.

### Creation of an AI Interaction Platform for the Coexistence of Humans, Animals, and AI

#### TANAKA Toshihisa

Professor, Institute of Engineering, Tokyo University of Agriculture and Technology



This research project focuses on recent evidence suggesting that coexistence with animals contributes to human health. It aims to create a novel "communication service that can expand human and AI capabilities and co-create new experiences" where humans, animals, and AI can grow together in a trinity. By developing AI capable of monitoring and nurturing companion animals and livestock, the project seeks to establish a social infrastructure that enriches human life.

### Evolutionary communication infrastructure connecting diverse mobile devices and

#### TSUKADA Manabu

Associate Professor, Graduate School of Information Science and Technology, The University of Tokyo



This research aims to create a seamless communication platform between humans and Embodied AI in future transportation systems. It enables interoperability between vendor-defined messages without relying on traditional ITS standards. Using foundational models, it will demonstrate communication among various devices. By sharing the results as open-source, the project seeks to lead the community and enhance safety and efficiency in future transportation systems.

### Scaling-Friendly Tiny Fully-Integrated IoT Enabling Dynamically Environmental-Adaptive Time-Space Augmentation

#### NIITSU Kiichi

Professor, Graduate School of Informatics, Kyoto University



Tiny IoT with dynamically environmental-adaptive time-space augmentation is developed by exploiting CMOS process scaling. Specifically, scaling-friendly fully-integrated smaller-than-1mm-square IoT chip is designed and prototyped. Exploration of developed tiny IoT application will be performed.



### Foundational Techniques for Malleable Tools for a Reciprocal Anime Co-creation Environment

**KATO Jun**

Senior Researcher, Human Informatics and Interaction Research Institute, National Institute of Advanced Industrial Science and Technology



This project takes anime creation as a key application domain to develop foundational techniques for malleable tools and to realize an environment where anime creators and tool developers can form reciprocal relationships. Its nickname, "animāre (pronounced ah-nee-MAH-ray)", not only represents the keywords anime, malleable, and reciprocal, but also comes from the Latin "to give life," the root of the word animation.



### Connected Matter: Wireless Networks of Computing Particles for Electronic Skin Devices

**KADOMOTO Junichiro**

Assistant Professor, Graduate School of Information Science and Technology, The University of Tokyo



We propose "Connected Matter," an architecture in which computing particleless, equipped with sensing, processing, and communication capabilities, are wirelessly connected and powered. The architecture enables skin devices that simultaneously achieve three key properties: flexibility and robustness, support for diverse form factors, and ease of sensor development and integration. Building on this architecture, we establish design principles for such devices.



### Collaborative Co-design of Sensing, Communication, and Control Leveraging Spatio-temporal Sparsity of Visual Information

**KISHIDA Masako**

Professor, Institute of Systems and Information Engineering, University of Tsukuba



This research focuses on "spatiotemporal sparsity of visual information" essential for control systems and develops control technology utilizing "Event camera-Fourier Optics fusion sensors" that achieve hardware-level spatiotemporal compression. Through collaborative measurement-communication-control co-design optimized for its characteristics, we establish next-generation infrastructure achieving real-time performance and high efficiency, leading to innovation in autonomous vehicles and industrial robots.



### Fusion of Terahertz-Induced Ultrasound and Robotics for AI Tactile Perception

**MONNAI Yasuaki**

Associate Professor, Research Center for Advanced Science and Technology, The University of Tokyo



Ultrasound has been widely used for noninvasive and nondestructive measurements across diverse fields, ranging from biomedical to industrial applications. However, its transmission requires physical contact with the target, which imposes limitations on its applicability. To overcome this constraint, this study establishes a non-contact beam-scanning technique based on terahertz-induced ultrasound and implements it on a robotic arm, enabling AI-driven arm-beam cooperative control for wide-area scanning. We aim not only to create a novel measurement principle that fuses terahertz and ultrasound, but also to advance AI's understanding of the physical world through the implementation of robotic tactile perception.



### Building a Vision-Language Benchmark Framework for Disaster Response

**YOKOYA Naoto**

Professor, Graduate School of Frontier Sciences, The University of Tokyo



We develop a vision-language AI framework for wide-area understanding of disaster situations via natural language from satellite, aerial, and ground imagery with maps. By simulating disasters on a digital twin, we automatically generate annotated synthetic disaster imagery. We will release a public benchmark for training and evaluation to assess accuracy, explainability, and reliability in VQA and map-based grounding and to support disaster-response decisions.



### Intelligent Dynamic Light-field Illumination for Real-Face "Light-Morphing"

**WATANABE Yoshihiro**

Associate Professor, School of Engineering, Institute of Science Tokyo



We will realize an intelligent illumination technology that actively controls the light field, founded on understanding the optical properties of dynamic objects and their interactions with light. As an application, we will demonstrate the novel concept of real-face "Light-Morphing"—flexibly transforming physical appearance through light projection. This will enable a new reality that adapts appearance to contexts and provides novel social value.



# Activity Report for FY 2024



## Process for Considering the Grand Challenge 2025

We proceeded with the process for considering the Grand Challenge to be solicited in FY2025 mainly led by the Program Officer (PO), referring to the method used by the U.S. NSF for reviewing public solicitation themes (Dear Colleague Letters), as outlined below.

- ① Each PO formulated a review policy
- Call for information from the research community
  - Call for information through a questionnaire system
  - Interactive sessions (introducing global technology trends and dialogue with researchers)
- ③ Workshops with experts
  - Invited speaker' s presentation \* Those who provided information in ② were also invited as observers
- ④ Formulation of the Grand Challenge



## Call for Information

Survey Period: October 21 (Mon), 2024 – December 5 (Thu), 2024, 17:00

Format: Questionnaire form on the CRONOS website

This call for information was conducted with the aim of establishing the direction of the Grand Challenge, which will serve as a foundation for focused and collaborative efforts to address significant issues that benefit society as a whole, by soliciting opinions from researchers.

Submissions were invited under the following four categories, and the figure below summarizes the results.

Good examples of community building in new fields

Noteworthy trends to be considered domestically and internationally

Challenging perspectives that go beyond conventional frameworks

Japan' s position and necessary initiatives

Number of information submissions: 36  
Profile of contributors: Universities: 29, National Research and Development Agencies: 3, Private Companies: 3, Overseas Research Institutions: 1

Classification	Number
① Advanced digital technologies and system development	13
② Social applications of AI and digital technology	7
③ Energy and sustainability	7
④ Coexistence of humans and AI/robots	6
⑤ Security and privacy protection	5



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## Interactive Session

**本日のプログラム (Today's program)**

Interactive session time schedule for setting the 2025 CRONOS Grand Challenge  
(Date: 24 Nov (Sat) 20:00-22:00 4 hours online conference)

Time	Contents
20:00-20:10	Greetings by JST and Nakao PO
20:10-20:25	Speaker's speech (1) (English) Serge Fdida Professor, Sorbonne Université Paris France Chairman, IEICE Society for Future Vision Research for Information and Communication Engineering
20:25-20:40	Speaker's speech (2) (English) Jim Kurose Associate Professor, College of Engineering and Computer Science, Northeastern University USA
20:40-20:55	Speaker's speech (3) (English) Abhimanyu Gosain Senior Director, National Institute of Advanced Industrial Science and Technology National Institute of Advanced Industrial Science and Technology
20:55-21:10	Q&A session with speakers (English)
21:10-21:25	Dialogue session between Nakao PO and participating researchers (Japanese)
21:25-21:40	Closing remarks by Nakao PO

Date and Time: November 16 (Sat), 2024, 20:00-22:00

Format: Zoom Webinar

Speakers/Moderator: PO Nakao

Guest Speakers:

- Serge Fdida (Professor, Sorbonne Université)
- Jim Kurose (Professor, University of Massachusetts Amherst)
- Abhimanyu Gosain (PAWR Director, Northeastern University)

We held a session featuring a guest speaker who presented global technology trends, followed by a dialogue between PO Nakao and researchers regarding the direction of the Grand Challenge.

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## Workshops with experts



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Date and Time: December 22 (Sun), 2024, 13:00-18:15

Format: Closed Session

We held the Grand Challenge Workshop 2025, based on the results of the call for information and interactive sessions.

On the day of the event, a total of 45 participants attended, including PD Shinohara, PO Nakao, PO Kawahara, invited experts, and those who contributed to the call for information.

Each PO set discussion topics for their respective areas, and a total of 19 researchers gave presentations, resulting in lively discussions.

● Area 1 (PO Nakao)

- ① Communication Architecture and Security
- ② Elemental Technologies of Communication
- ③ Applications of Communication

● Area 2 (PO Kawahara)

- ① Modeling and benchmarking of problems challenging important issues in society
- ② Innovation in information and communication system technology driven by new needs

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## CRONOS session held at the academic conference



### The 87th National Convention of IPSJ

\*IPSJ (The Information Processing Society of Japan)

Special Session: "Grand Challenge in Information and Communication Science"

Date and Time: March 14 (Fri), 2025, 9:30-11:30

Venue: Ritsumeikan University, Osaka Ibaraki Campus, Event Hall 2 + Online

PO Kawahara, together with the AD and the selected researchers FY2024, participated in a panel discussion based on the introduction of their respective research topics. The discussion focused on how to promote collaboration between different fields and communities, and how to create new prospects for the future.



### IEICE General Conference

\*IEICE (The Institute of Electronics, Information and Communication Engineers)

Special Session: "Challenges Toward the Realization of Next-Generation Cyber Infrastructure"

Date and Time: March 27 (Thu), 2025, 13:45-17:00

Venue: Tokyo City University, Setagaya Campus, Building 2, Room 22C + Online

PO Nakao, together with the AD and the selected researchers FY2024, shared the latest information on their research topics. As members of the Communications Society, they discussed future research themes to be addressed and efforts for human resource development, as well as prospects for the future.



## Empowering Science, Inspiring Futures

Our world faces unprecedented global challenges — such as climate change, energy crises, and emerging infectious diseases — that demand innovative solutions. JST will rise to these challenges through “ Science and Technology, ” as a national research and development agency that plays a central role in implementing Japan’ s science, technology, and innovation policy. We support fundamental research and startups to create new value, develop R&D strategies, foster the next generation of talent, disseminate vital information, and manage the Japan University Fund. Like a compass guiding ships through turbulent waters, JST will chart the way towards a vibrant and secure future by empowering science through a multifaceted approach.

### Contacts & Website

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Japan Science and Technology Agency (JST)

Department of R&D for Future Creation

Web : <https://www.jst.go.jp/kisoken/cronos/en/index.html>

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Web



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