6.3 ACT-I

Research area in the Strategic Objectives "Creation of integration technology to enable utilizations of diverse and massive data using Artificial Intelligence core technologies rapidly growing in sophistication and complexity," "Development of intelligent information processing technology to realize creative collaboration between human and machines," "Creation, advancement, and systematization of innovative information technologies and their underlying mathematical methodologies for obtaining new knowledge and insight from use of big data across different fields."

6.3.1 Information and Future

Research Supervisor: Masataka Goto (Prime Senior Researcher, Information Technology Research Institute, National Institute of Advanced Industrial Science and Technology (AIST))

Overview

Remarkable progress in informatics and related technology development has continuously created new value in science, industry, society and culture. Informatics and information technology have already played an essential role in developing every scientific field, in maintaining and developing industry and economy, in enhancing social infrastructure combining physical and information spaces, and in raising the quality of healthy and cultural lifestyles. They are going to be more important core technology that creates future. It is necessary to promote innovative research and development in informatics and to solve both current and future problems that people face, because those actions should be able to create new value and help to explore the future and to promote sustainable development of people.

In this research area "Information and Future" in ACT-I (Advanced Information and Communication Technology for Innovation), we support young informatics researchers who have pioneering spirit and promote their research that will create new value. We seek challenging research plans based on new ideas in a broad range of research fields related with informatics, including but not limited to artificial intelligence, big data, IoT, and cyber-security. We believe that original ideas can advance a wide variety of research and development that will change science, industry, society and culture in the future.

We look for young researchers who explore the future and create new value, and provide a place for them to inspire each other. So, we are going to foster potential researchers who contribute to make future society better and to help to expand their human relationship for collaboration with each other in the future. We hope to increase potential researchers more and create better future.

This research area will operate as part of the Advanced Integrated Intelligence Platform project (AIP project) of the Ministry of Education, Culture, Sports, Science and Technology.

Research Supervisor's Policy on Call for Application, Selection, and Management of the Research Area

(1) Background

It is one of the most important things in promoting innovative research and development in informatics that independent researchers to create results contributing to the future by unique ideas beyond existing ones. If researchers combine their respective specializations and collaborate with various experts and organizations, they can give stronger impact on science, industry, society and culture in the future.

The research area ACT-I "Information and Future" is a support program for young researchers, so we support them to establish themselves as researchers, take the initiative in undertaking ambitious research and development, and provide opportunities to inspire each other and foster future collaboration. Through this process, we aim to pioneer the future and create new value.

Researchers under 35 years old on April 1st in the year of application can apply for this research area. For university students, only graduate students are eligible. We hope for applications from graduate students and young researchers at corporations. Since ACT-I is a new program that is established by JST and aimed for younger researchers than PRESTO, we have an age restriction. If you are older than the restriction, we recommend to apply for PRESTO.

(2) Policies for solicitation and selection

Please write a proposal about ideas and originality of your research, as well as plan and goal in research period (one year and six months.) In particular, we want to know what a current or future problem you want to solve, what a value you want to create, and what kind of future you want to explore. Regardless of whether it is a challenge that can start to have an immediate impact if the research and development succeeds or a challenge that takes on the nurturing of seeds for technologies that will garner attention in the future, what we want is research and development that will be pursued with fervor and passion, even if the methods through which they make contributions are different.

Though the research period is short, we expect adopted researchers to challenge with their passion and ideas. During this period, we want adopted reserchers to interact with other researchers in this research area and to make discussion with Research Area Advisors who are experts in a broad range of research fields related with informatics, and then to grow into mature researchers.

Therefore, in the selection process, we will place emphasis on individual research themes based on the personal convictions of the proposer. We will also confirm how the proposer challenges a theme that results in future development and value creation and how it will contribute currently or in future.

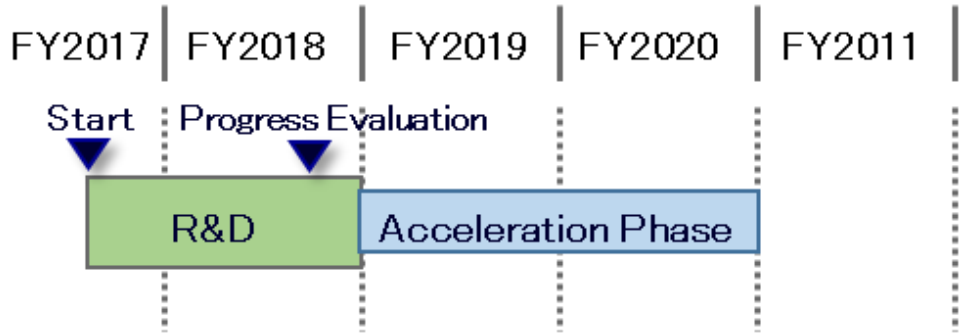
(3) The orientation of the themes in the research area

We seek challenging research plans based on new ideas in a broad range of research fields related with informatics. It is not always necessary to focuse on current keywords such as AI, big data, IoT, and cyber security. Rather, we also expect innovative proposals that create new keywords in the next reneration. This research area aims to create new value in science, industry, society and culture, but keep in mind you do not have to cover all of them.

(4) Research and development period, and research costs

The research and development period is one year and six months from the date of signing contract (for applicants in FY2017, until March 31, 2019). The standard total research fund is 3 million yen (direct cost) and the maximum is about 5 million yen. Please write a proposal in line with this research period and cost. If your cost exceeds 3 million yen, please state the reason clearly in your research proposal.

When adopted researchers wish, about one third of the adopted subjects will be eligible for an additional support of up to 10 million yen per year (direct cost) for a maximum of two years. In this acceleration phase, we prioritize research proposals which are expected to achieve even greater results with continuous support. Researchers will determine whether they wish to be eligible for this additional support by the time of the progress evaluation conducted one year after the start of the research. For the acceleration phase, a new contract up to two years will be signed from the day after the end of the research and development period.



(5) Research area management policy after selection

In this research area, we will actively support adopted researchers to advance their own research with ideas beyond existing ones and establish themselves as researchers. At an early stage after adoption, we will hold a research area meeting in which the Research Supervisor and Research Area Advisors as well as other adopted researchers will gather for a scholarly exchange. We will aim to achieve more important and impactful results by deepening and refining research through such discussions and exchanges. Furthermore, each adopted researcher will be supported by the Research Area Advisor in charge to advance researches further by advice, guidance and site visit.

This research area will also contribute in the integrated administration of the AIP project - which integrates artificial intelligence, big data, IoT and cyber security - by working on research tasks in cooperation with related research institutions such as the RIKEN Center for Advanced Integrated Intelligence Research. This is one of the research areas included in the "AIP Network Laboratory", which is part of the AIP project.

* The research proposal form for applying for this research area is different from that of other research areas, so to apply, download the correct form from e-Rad or the JST website for Invitation of Research Proposals.
* The briefing sessions for the call for proposals in this research area will be held on the following dates at the following locations. We hope that many interested parties will attend. Both briefings listed below will be held jointly for the ACT-I research area “Information and Future,” the PRESTO research area “Fundamental Information

Technologies toward Innovative Social System Design,"the PRESTO research area "The Future of Humans and Interactions."

	Date & Time	Place
Tokyo Note: only in Japanese	April 19 (Wed) 14:00～17:00	JST Tokyo Headquarters, 1st Floor Hall (7, Gobancho, Chiyoda-ku, Tokyo)
Kyoto Note: only in Japanese	April 18 (Tue) 13:00～16:00	Mielparque Kyoto, 5th Floor RoomB (Higashi-no-Touindoori-Nanajyousagaru-Higashi-Shiokouji-machi 676-13, Shimogyou-ku, Kyoto)

For more information, please visit the following site: http://www.senryaku.jst.go.jp/teian-en.html