The activities of the National Institute of Informatics (NII), as Japan’s only general scientific research institute in the field of informatics, range from fundamental research conducted from a long-term perspective, to practical research aiming to resolve the issues faced by society today. While NII provides the Science Information Network (SINET), it also develops academic content and services that are essential to research and education activities throughout the scientific community as a whole. In March 2019, we finished building round-the-globe 100 Gbps links, which circle the world: from Japan, to the United States, to Europe, and then back to Japan. At the same time, we boosted the speed of our link between Japan and Asia to 100 Gbps as well. Through these international connections, we are taking integrated research among the United States, Europe, and Asia to deeper levels, including international collaboration on “big science”, such as with the European Organization for Nuclear Research (CERN), and at the same time we are further strengthening Japan’s level of international cooperation and the international competitive power of Japan.

Through these international connections, NII contributes to both Japanese society and the international community. In carrying out such international research and educational activities and managing these projects, partnerships with and the cooperation of scientific research institutions around the world are essential. It is vital that all faculty members and staff take part in international activities proactively, in line with their own objectives and points of view.

In order to enhance such activities and to deploy them on an even larger scale in a long-term sustained manner, we established in January 2003 the Global Liaison Office (GLO), which has advanced highly strategic and dynamic international cooperation. As a result, we have concluded (as of July 31, 2019) memorandums of understanding (MOUs) with 118 universities, research institutes, and other organizations overseas. We are actively carrying out various exchange programs with these institutions, including the NII International Internship Program.

In addition, in February 2011, we launched the NII Shonan Meeting program as a distinctive initiative for international cooperation. The NII Shonan Meeting brings together top researchers from around the world for intensive discussions on topics in the field of informatics. Through these activities, we aim to resolve the difficult challenges of informatics and create value for the future, while also raising awareness of NII as an international research institute in the field of informatics.

NII will continue to promote these international exchange activities, and we look forward to your ongoing interest and support.
The Graduate University for Advanced Studies (SOKENDAI) participates in The Graduate University for Advanced Studies (SOKENDAI) and established Department of Informatics to train IT researchers and engineers at the international level. The program of study encompasses six fields:
- Foundations of Informatics,
- Information Infrastructure Science,
- Software Science,
- Multimedia Information Science,
- Intelligent Systems Science,
- Information Environment Science.
It accepts students from abroad and provides an educational environment well-suited to international students, who account for approximately 60% of its student body.

Based on a culture that emphasizes lively intercultural exchange among students, the program prepares its graduates to thrive in various fields.

NII Graduate Program Web Site
https://www.nii.ac.jp/graduate/en/

International Exchange Activities at NII
Outline
NII is actively engaged in initiatives including joint research and international exchange activities among researchers, to promote international exchange with universities and research institutes around the world. In connection with these, NII supports a wide range of research activities, including the conclusion of international memorandums of understanding (MOUs), acceptance of interns from foreign countries (NII International Internship Program), and invitations and dispatches of researchers from/to MOU institutions (MOU Grant).

Other aspects of NII international cooperation initiatives include organizing the NII Shonan Meeting and accepting international researchers under agreements with the German Academic Exchange Service (DAAD) and the Japanese-French Laboratory for Informatics (JFLI), and accepting international students to the Department of Informatics of the Graduate University for Advanced Studies (SOKENDAI). We also organize events, including lectures, seminars, and symposiums led by well-known researchers.

The Global Liaison Office (GLO) was established at NII in 2003 to serve as a foundation for these activities. The GLO is organized by NII faculty and staff. The Deputy Director General serves as its Director, assisted by an Acting Director.

In addition to the activities noted above, the GLO also facilitates exchanges with research institutions around the world through the study and implementation of various measures intended to promote international exchanges, including the formulation of fundamental international-exchange policies.

Acceptance of Graduate Students from Abroad
The Graduate University for Advanced Studies (SOKENDAI)
NII participates in The Graduate University for Advanced Studies (SOKENDAI) and established Department of Informatics to train IT researchers and engineers at the international level. The program of study encompasses six fields:
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NII Graduate Program Web Site
https://www.nii.ac.jp/graduate/en/

Number of MOU

![Number of MOUs chart]

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International Exchange Activities Overview

Emmanuel Planas
Acting Director
Global Liaison Office

Objectives of NII’s International Policy

Globalization, for better or worse, is nowadays the key word in our society; our lives are increasingly interlinked and the ICT that supports the rise of social media and social networks has a basic contribution. As virtual networks develop, rapid advances in ICT change not only the ways new knowledge is disseminated but also how scientists collaborate. Research networking is more important than ever, as many of the “grand challenges” the world is facing today have scientific dimensions; international research collaboration is critical to finding sustainable solutions to problems like global warming, those related to the environment and energy, proliferation of infectious diseases, etc. It is by building global alliances/collaborations that we will be able to create sustainable solutions to protect the world for future generations.

Since its creation, NII has been developing strategies to boost its international cooperation based on person-to-person relationships leading to organization-to-organization agreements in order to establish itself as an international hub of excellence in informatics within Japan.

The main objectives of NII’s international policy are:

- To enhance the quality of research through long-term partnerships with world-leading institutions
- To support the achievement of scientific excellence within the wide international framework
- To produce significant, mutual and balanced benefits, taking into account the specific aspects of our partners whilst respecting the protection of intellectual property
- To facilitate access to scientific knowledge outside NII and to serve the interests of NII and Japan
- To increase opportunities for its researchers and those of its partners
- To promote Asian scientific and technological culture
- To attract excellent graduate students to NII

Because there is not just one way of thinking, researching, or collaborating, it is essential today that our researchers have the opportunity to seek and be exposed to different models developed in different laboratories around the world. The implementation of this policy has benefited NII researchers and has increased NII presence in networks of excellence. This result confirms the value and the necessity of international cooperation.

These first words would not be complete without warmly congratulating the work of my predecessor Prof. Henri Angelino, who wisely set up the Global Liaison Office at NII in 2003 and managed with brio NII’s international relations until FY2017.

Implementation

Efficient international cooperation (IC) is always a bottom-up process, as it relies first of all on the expertise of individual researchers and their overseas colleagues. Nevertheless, to implement IC, some tools must be available. In relation to that, NII created in 2003 the Global Liaison Office (GLO). GLO first evaluates the quality and benefit of a possible agreement with a candidate partner institution. Then GLO helps researchers to establish their projects by using a template Memorandum of Understanding (MOU) to start the discussion with the potential partner. There are two types of MOU: those for “operations” and those for “research”. In the case of a “research MOU”, at least one joint project must be identified before signatures are affixed. The project is described in an annex. New projects can be added after the MOU is signed. An MOU is effective for a maximum of 5 years. It can be renewed subject to a re-evaluation.

NII financially supports two main programs to implement IC: the “MOU/Non-MOU Grant” and the “NII International Internship Program”. Twice a year, there is an internal call for MOU/Non-MOU Grant applications; some financial support is available under GLO supervision for the exchange of researchers (post-docs up to senior researchers), graduate students, and technical staff. There is also a twice-a-year call for applications to the NII International Internship Program for Master’s and PhD students at partner institutions; after final approval by GLO, the accepted applicants will each work at NII for 2 to 6 months on projects proposed by NII researchers while receiving a scholarship from NII. The host lab can extend their stay, on common agreement, by up to 10 months.

Last but not least, NII has launched the “NII Shonan Meeting”, following the example of the well-known Dagstuhl Seminars: top-class scientists, promising young researchers, and practitioners come together at Shonan Village Center to exchange their knowledge, discuss their research findings, and explore a cutting-edge informatics topic.

Some Key Recent Results

In the framework of NII’s international policy, as of July 2019, 11 operational MOUs and 107 research MOUs have been concluded. The latest ones were signed in early 2019, with the Alan Turing Institute, IRISA, École Nationale Supérieure de Lyon, and Dublin City University. Currently, there are ongoing discussions regarding new agreements with North and South American, Chinese, and European institutes.

From 2017 to July 2019, NII has:

- Welcomed an average of 70 interns per call, with stays averaging 4.5 months
- Seen almost all of these interns publish at least one paper for a top conference or journal, often jointly with their home institution supervisor associated with an NII supervisor, fostering international cooperation
- Obtained awards on a regular basis for intern co-publications
- Received visits from 91 guests supported by the GLO budget, coming to meet with NII colleagues
- Renewed its partnership with DAAD for supporting the DAAD-NII Post-Doctorate Program
- Received 61 students to PhD degree programs with its partner Sokendai, the Graduate School of Advanced Studies, often co-supervising with a home institution professor
- Welcomed partner researchers for sabbatical stays
- Welcomed post-docs, particularly through the DAAD-NII Post-Doctorate Program
- Co-organized and participated in international workshops with foreign institutes
- Celebrated the 100th Shonan Meeting on 22nd June, 2018
NII International Internship Program

NII International Internship Program is organized for Master's and PhD students from institutions with which NII has concluded MOUs. During the internship period, they each work on a research topic under the supervision of an NII supervisor. This program has contributed significantly to NII's research activities by promoting exchange with our partner institutions by hosting and sponsoring interns since its inception in 2005.

MOU Grant was established in 2005, and Non-MOU Grant was added in 2006, to promote the further exchange of research with universities/institutions worldwide by supporting travel expenses. MOU and Non-MOU Grant support NII researchers to invite researchers from our partner or non-partner institutions or visit our partner institutions, for research activities.

Number of Acceptance

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The Japanese-French Laboratory for Informatics (JFLI; https://jfli.cnrs.fr) was established in 2008 to conduct collaborative research in the field of informatics. It involves five universities and research institutions: the National Center for Scientific Research (CNRS) and Sorbonne University (UPMC, Paris 6) from France, and the University of Tokyo, Keio University, and the National Institute of Informatics (NII) from Japan. JFLI served as a hub for research collaboration between France and Japan during its first five years. In 2012, it was expanded to be an International Joint Unit (UMI) with extended cooperation among the partners.

The research of JFLI has an emphasis on important and challenging fields which particularly benefit collaborative research efforts. Five research topics have been identified as the core research fields at JFLI. These are (1) Next Generation Networks; (2) High Performance Computing; (3) Software, Programming Models and Formal Methods; (4) Virtual Reality and Multimedia; and (5) Quantum Computation.

Since the beginning of JFLI, it has promoted collaboration among the partners and actively supported graduate students and young researchers. Through JFLI activities, we have now established a network of collaborating researchers. JFLI workshops have been organized once a year since 2016 to feature and share our collaborative research, as well as to enhance collaboration between France and Japan. JFLI is committed to supporting collaborative research activities and pursuing excellence in research.

NII Web Site
https://www.nii.ac.jp/en/about/international/

JFLI Web Site
https://jfli.cnrs.fr/
NII Shonan Meeting

Outline
In February 2011, NII launched the NII Shonan Meeting as the first Dagstuhl*-style seminar series in Asia. The purpose of the meetings is to solve various challenges in the field of informatics by gathering world-leading researchers and promising young researchers from around the world to engage in intensive discussions on the issues in a training-camp-style atmosphere that promotes close interaction among participants.

The meetings have been held 136 times as of August 2019, including "NII Shonan School" held once in 2014 and twice in 2017, which was targeted at the top-level students and young researchers in the field of informatics. NII has hosted these meetings in collaboration with Kanagawa Prefecture based on a partnership agreement.

*Dagstuhl Seminar: A renowned seminar series in the field of informatics, held almost every week in Dagstuhl, Germany. It is famous for hosting participants for one week to have intensive discussions on the topics of informatics.

Location
The Shonan Village Center (SVC) is a permanent venue for the NII Shonan Meeting and providing a lodging-type meeting style for international exchanges among participants all over the world. It is easy to access from both Haneda Airport and Narita Airport, and provides an ideal environment surrounded by nature where participants can focus on research activities.

Support by NII Office and Shonan Village Center (SVC)
NII Office: Coordinating the meetings by carrying out general administrative arrangements, such as sending out invitations and handling numerous inquiries and requests via e-mail exchanges.
SVC: Arranging and operating the venue of the meetings on the site.
The program also includes events like a historical tour of Kamakura to cultivate personal exchanges and friendship among participants.

Call for Proposal
NII accepts seminar proposals for the NII Shonan Meeting throughout the year. The deadlines for submitting proposals are twice a year (June 15th and December 15th). Organizers submitting proposals will be notified as to whether their proposals are accepted following a review by the Academic Committee of the NII Shonan Meeting.

The Office of the NII Shonan Meeting
https://shonan.nii.ac.jp/shonan@nii.ac.jp