International Exchange Activities

NII
大学共同利用機関法人 情報・システム研究機構
国立情報学研究所
National Institute of Informatics

CONTENTS

Greeting from Director General

Masaru Kitsuregawa
Director General

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 (SINET5), 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.
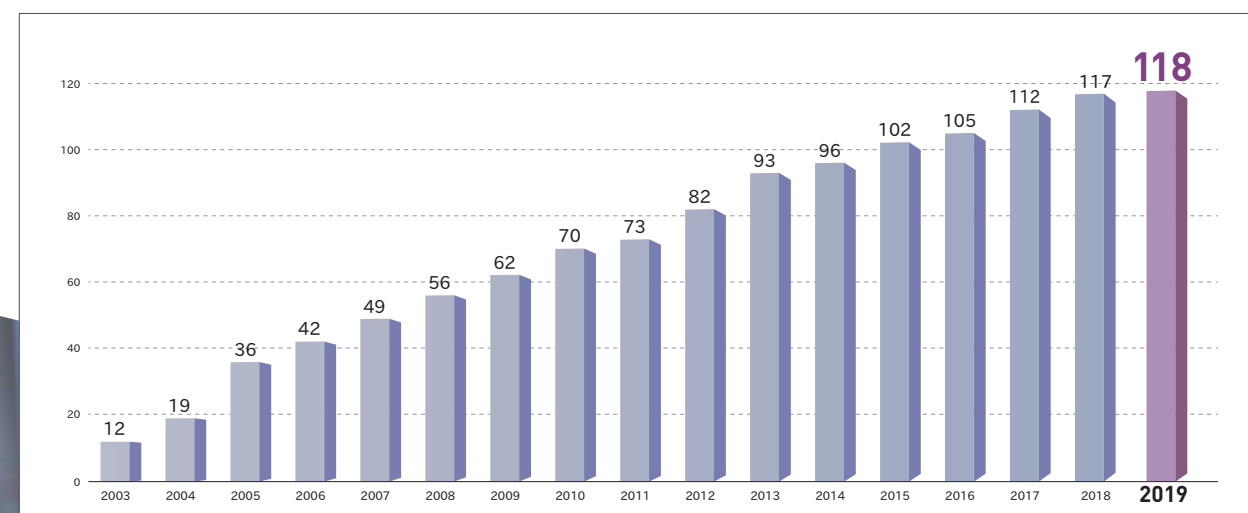
International Exchange Activities at NII

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.

Number of MOU

Year	Value
2003	12
2004	19
2005	36
2006	42
2007	49
2008	56
2009	62
2010	70
2011	73
2012	82
2013	93
2014	96
2015	102
2016	105
2017	112
2018	117
2019	118

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:
- 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 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, Ecole 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

International Exchange Agreements (MOUs)

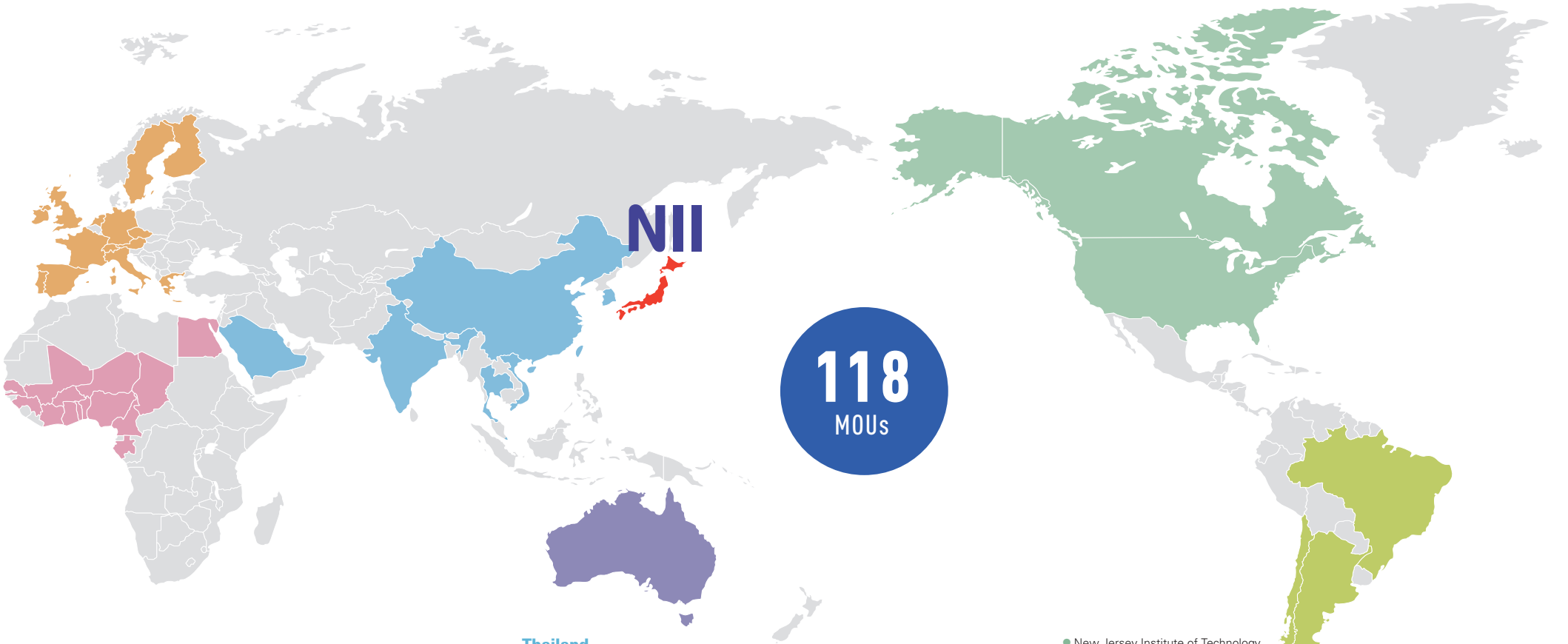## Research Cooperation : 107

Europe

United Kingdom of Great Britain and Northern Ireland
- The Alan Turing Institute
- University of Bath
- Department of Computer Science, University of Bristol
- Department of Theoretical and Applied Linguistics, University of Cambridge
- School of Informatics, University of Edinburgh
- School of Computer Science & Electronic Engineering, University of Essex
- Department of Computing at Imperial College London
- University of Kent, Faculty of Sciences, School of Computing
- Department of Computer Science, Faculty of Engineering Science, University College London
- Newcastle University
- Faculty of Science, Technology, Engineering & Mathematics, The Open University
- Department of Computer Science, University of Oxford

Ireland
- Dublin City University
- Lero - the Irish Software Research Centre
- Trinity College Dublin

French Republic
- Claude Bernard University Lyon 1
- Université Clermont Auvergne (The Blaise Pascal University of Clermont-Ferrand), LIMOS
- National Center for Scientific Research (CNRS)
- Université Grenoble Alpes (Université Joseph Fourier-Grenoble 1)
- Institut National Polytechnique de Grenoble
- The French National Audiovisual Institute (INA)
- Institut National de Recherche en Informatique et en Automatique (INRIA)
- Institut de Recherche en Informatique et Systèmes Aléatoires (IRISA)
- Centre de Recherche en Informatique de Lens (CRIL)
- Ecole Normale Supérieure de Lyon (ENS Lyon)
- University of Nantes (Atlanstic 2020)
- University of Nice Sophia Antipolis
- Laboratoire d'Informatique de Paris 6, Sorbonne Université (l'Université Pierre et Marie Curie)
- Université Paris Sud
- INP Toulouse-ENSEEIHT
- Université Toulouse III - Paul Sabatier

Federal Republic of Germany
- RWTH Aachen University (Faculty of Mathmatics, Computer Science and Natural Sciences)
- Faculty of Applied Computer Science, University of Augsburg
- Berlin Institute of Technology (TU Berlin)
- Bochum University of Applied Sciences, Department of Electrical Engineering and Computer Science
- Technische Universität Braunschweig (TU Braunschweig)
- The German Academic Exchange Service (DAAD)
- Institute of Information Systems, German Research Center for Artificial Intelligence (DFKI)
- The Faculty of Applied Science of the University of Freiburg
- Georg-August-Universität Göttingen
- Department of Computer and Information Science at the University of Konstanz(ISGUK)
- Ludwig-Maximilians-Universität München
- Technische Universität München (TUM)
- The Faculty of Science at the University of Potsdam
- Saarland University

Republic of Austria
- Vienna University of Technology

Italian Republic
- Dipartimento di Informatica - Scienza e Ingegneria (DISI), Università di Bologna
- Università degli Studi di Ferrara (UNIFE)
- Politecnico di Milano, Dipartimento di Elettronica, Informazione e Bioingegneria
- Dipartimento di Informatica, Università degli Studi di Torino

Swiss Confederation
- Institute of Electrical Engineering in Ecole Polytechnique Federale de Lausanne

Finland
- Aalto University

The Kingdom of Sweden
- School of Computer Science and Communications (CSC), KTH Royal Institute of Technology

Czech Republic
- The Institute of Physiology of the Czech Academy of Sciences
- Faculty of Electrical Engineering, Czech Technical University in Prague

Spain
- Facultat d'Informàtica de Barcelona, Universitat Politècnica de Catalunya (UPC)
- Universidad Politécnica de Madrid (UPM)
- Universitat Politècnica de València (UPV)

Greece
- Athena Research & Innovation Center

The Netherlands
- Faculty of Electrical Engineering, Mathematics and Computer Sciences of Delft University of Technology (TU Delft)

Portuguese Republic
- Instituto de Engenharia de Sistemas e Computadores, Investigação e Desenvolvimento em Lisboa (INESC-ID)
- INESC Technology and Science (INESCTEC)

Africa

Arab Republic of Egypt
- Egypt Japan University of Science and Technology(E-JUST))

Asia

People's Republic of China
- Institute of Computational Mathematics and Scientific/Engineering Computing, Academy of Mathematics and System Sciences, Chinese Academy of Sciences
- Institute of Computing Technology, Chinese Academy of Sciences
- The Hong Kong University of Science and Technology (HKUST)
- School of Electronics Engineering and Computer Science, Peking University
- The School of Electronic Information and Electrical Engineering of Shanghai Jiao Tong University
- Tongji University
- School of Information Science and Technology, Department of Automation, Tsinghua University
- University of Science and Technology of China (USTC)

Taiwan
- College of Electrical Engineering and Computer Science, National Taiwan University
- National Tsing Hua University, College of Electrical Engineering and Computer Science (NTHU EECS)

Thailand
- School of Engineering and Technology, Asian Institute of Technology
- Department of Computer Engineering, Chulalongkorn University
- Faculty of Science, Kasetsart University

Socialist Republic of Viet Nam
- Hanoi University of Science and Technology(HUST)
- International Research Institute, Multimedia Information, Communication, and Applications (MICA)
- VNU University of Engineering and Technology
- Vietnam National University of Ho Chi Minh City (VNU-HCM)
- University of Science (Vietnam National University - Ho Chi Minh City)

Republic of Korea
- Korea Institute of Science and Technology Information (KISTI)
- Department of Computer Science and Engineering, Seoul National University

Republic of Singapore
- Institute for Infocomm Research
- School of Computing, National University of Singapore(NUS)

India
- Indraprastha Institute of Information Technology, Delhi

Kingdom of Saudi Arabia
- King Abdullah University of Science and Technology(KAUST)

Oceania

Commonwealth of Australia
- CSIRO(Data61)
- School of Computing & Information Systems, Melbourne School of Engineering, The University of Melbourne
- The University of Queensland (UQ)
- Royal Melbourne Institute of Technology
- The Faculty of Engineering and Information Technologies,The University of Sydney

North America

United States of America
- International Computer Science Institute
- University of Illinois at Urbana Champaign
- Indiana University, School of Informatics, Computing, and Engineering
- University of Michigan-Dearborn, College of Engineering and Computer Science
- New Jersey Institute of Technology
- University of Southern California
- College of Engineering, University of Washington, Seattle

Canada
- Faculty of Science, Department of Computing Science, the Alberta Machine Intelligence Institute, University of Alberta (Amii)
- School of Computer Science, McGill University
- Polytechnique Montréal
- Simon Fraser University
- Faculty of Mathematics, University of Waterloo

South America

Republic of Argentina
- The Faculty of Exact and Natural Sciences of Buenos Aires University

Brazil
- Pontifical Catholic University of Campinas

Republic of Chile
- Pontificia Universidad Católica de Chile

Development and Operationan : 11

Asia-Pacific
- Asia-Pacific Ring (APR) Collaboration

United States of America
- Indiana University
- North American Coordinating Council on Japanese Library Resources (NCC)
- The New Venture Fund (NVF) on behalf of the Scholarly Publishing & Academic Resources Coalition (SPARC)

Republic of Korea
- Korea Education & Research Information Service (KERIS)

Federal Republic of Germany
- Hochschulbibliothekszentrum des Landes Nordrhein-Westfalen
- German National Library of Science and Technology (TIB)
- German National Library of Medicine (ZB MED)

Swiss Confederation
- The European Organization for Nuclear Research ("CERN")

EU
- GÉANT

Africa
- The West and Central African Research and Education Network (WACREN)

NII

118 MOUs

as of July 31th 2019
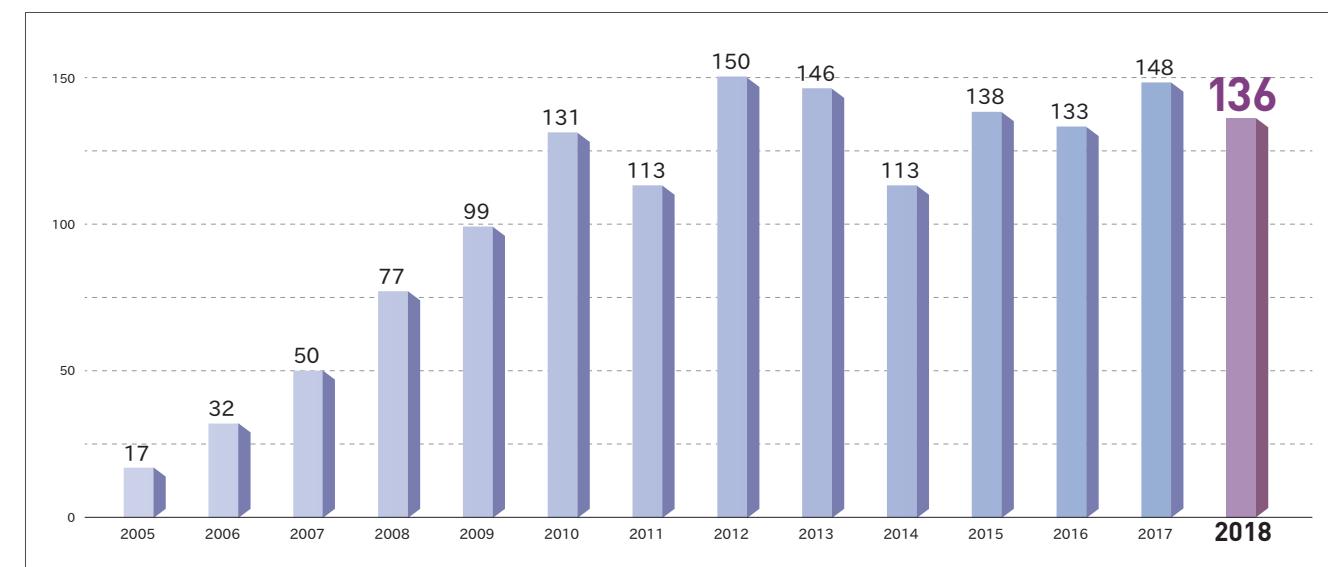
NII International Internship Program

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.
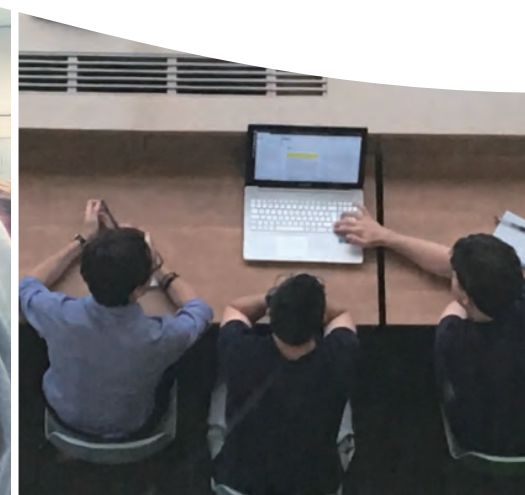
NII International Internship Program
https://www.nii.ac.jp/en/about/international/mouresearch/

Number of Acceptance

Year	Value
2005	17
2006	32
2007	50
2008	77
2009	99
2010	131
2011	113
2012	150
2013	146
2014	113
2015	138
2016	133
2017	148
2018	136

MOU Grant and Non-MOU Grant

MOU Grant was established in 2005, and Non-MOU Grant was added in 2006, to promote the further exchange of research with universities/institutions world wide 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.

Agreement with German Academic Exchange Service (DAAD)

NII has a special agreement with the German Academic Exchange Service (DAAD) that allows German postdoctoral researchers to stay at NII to conduct their research projects under the supervision of NII researchers.

Under the framework of that agreement, German postdoctoral researchers can stay at NII for a minimum of 3 months (6 months is recommended) and up to 2 years supported by DAAD. During that period, they carry out their own projects in connection with NII supervisors. These postdoctoral researchers may recruit Master's/PhD students or engineers to help them with their research during their stay. Since NII is an interuniversity organization, they can also visit NII's partner universities and research organizations in Japan to strengthen their Japanese network.

NII Web Site
https://www.nii.ac.jp/en/glo-daad/
DAAD Web Site
https://www.daad.de/ausland/studieren/Stipendium/de/70-stipendien-finderund-bewerbeu

The Japanese-French Laboratory for Informatics (JFLI)

Kae Nemoto
Professor
Japanese co-director of JFLI

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 the 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.

NII Shonan Meeting Scheme

Administrative structure

湘南会議
SHONAN MEETING

→ Academic Procedure
↔ Administrative Procedure

- **Academic Committee** — Review of proposal
- **Organizers of Each Seminar**
- **Steering Committee** — General and academic liaison
- **NII Administrative Office** — Support of academic procedure, and cooperation with Shonan Village
- **Shonan Village Center** — Arrangement of accommodation and venue
- **Participant**

Request for review of proposal ② ③ Report of review result
Proposal submission ① ④ Notification of review result

Joint cooperation

Sending invitation ⑤ ⑥ Participation registration
Request for accommodation registration ⑦ ⑧ Accommodation registration

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.
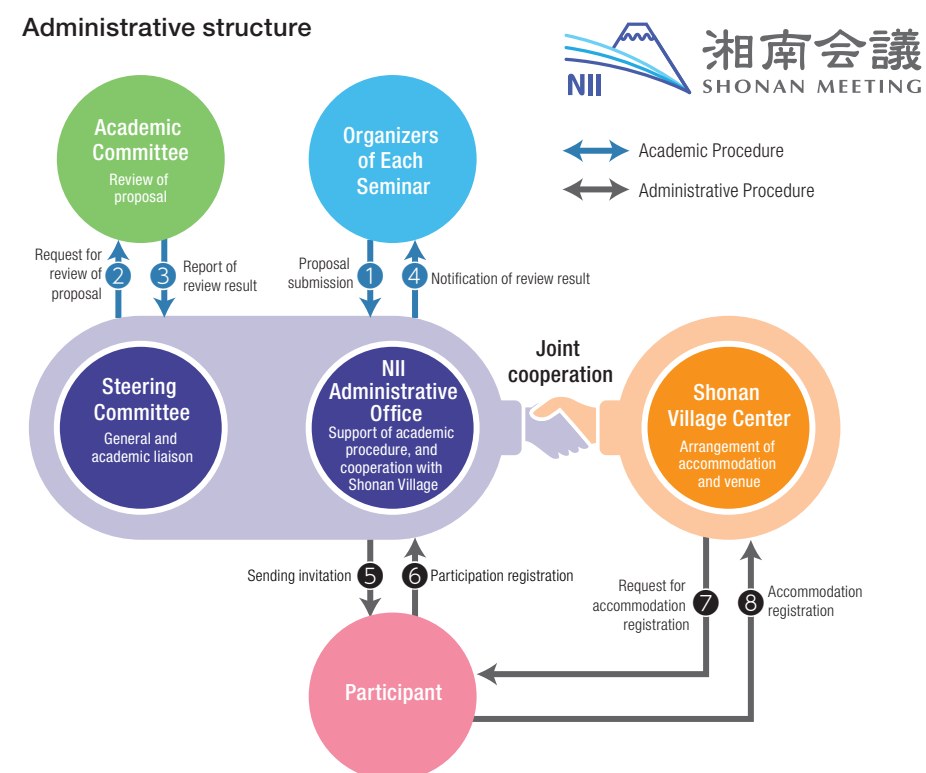
Support by NII Office and Shonan Village Center (SVC)

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