## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>1</td>
</tr>
<tr>
<td>Mission and Strategies of the National Institute of Informatics</td>
<td>2</td>
</tr>
<tr>
<td>Scope of the Research at National Institute of Informatics</td>
<td>3</td>
</tr>
<tr>
<td>Foundations of Informatics Research Division</td>
<td>4</td>
</tr>
<tr>
<td>Infrastructure Systems Research Division</td>
<td>5</td>
</tr>
<tr>
<td>Software Research Division</td>
<td>6</td>
</tr>
<tr>
<td>Multimedia Information Research Division</td>
<td>7</td>
</tr>
<tr>
<td>Intelligent Systems Research Division</td>
<td>8</td>
</tr>
<tr>
<td>Human and Social Information Research Division</td>
<td>9</td>
</tr>
<tr>
<td>Research Information Research Division</td>
<td>10</td>
</tr>
<tr>
<td>Research Center for Testbeds and Prototyping</td>
<td>11</td>
</tr>
<tr>
<td>Research Center for Information Resources</td>
<td>12</td>
</tr>
<tr>
<td>Research Cooperation / Graduate Education Activities</td>
<td>13</td>
</tr>
<tr>
<td>Dissemination of Research Results</td>
<td>14</td>
</tr>
<tr>
<td>Development Work and Operation of NII</td>
<td>15</td>
</tr>
<tr>
<td>Science Information Network</td>
<td>16</td>
</tr>
<tr>
<td>Catalog Information Service</td>
<td>17</td>
</tr>
<tr>
<td>Information Retrieval Service</td>
<td>18</td>
</tr>
<tr>
<td>Online Scientific Terms</td>
<td>19</td>
</tr>
<tr>
<td>Academic Society Home Village</td>
<td>20</td>
</tr>
<tr>
<td>Electronic Library Service</td>
<td>21</td>
</tr>
<tr>
<td>On-line Journal Editing and Publication System</td>
<td>22</td>
</tr>
<tr>
<td>Surveys of Academic Research Activities</td>
<td>23</td>
</tr>
<tr>
<td>Education and Training Program</td>
<td>24</td>
</tr>
<tr>
<td>International Activities of NII Services</td>
<td>25</td>
</tr>
<tr>
<td>Board of Councilors, Advisory Council for Research and Management, Advisory Board, Professors Emeritus</td>
<td>26</td>
</tr>
<tr>
<td>Organization/Budget, Staff</td>
<td>27</td>
</tr>
<tr>
<td>Facilities</td>
<td>28</td>
</tr>
<tr>
<td>History</td>
<td>29</td>
</tr>
<tr>
<td>Contact Information</td>
<td>30</td>
</tr>
</tbody>
</table>
This is the second year since the National Institute of Informatics (NII) was established in April 2000. "Information" is the keyword of the 21st century. In the G8 Summit, which was held at Okinawa last July, Information Communication Technology (IT) was one of the main topics. At the "Okinawa Charter on Global Information Society", it was said that "Information Technology (IT) is one of the most powerful forces in shaping the twenty-first century" and "enormous opportunities are there to be seized and shared by us all".

"Informatics", which is the target of NII, is a new academic field that aims towards the 21st century. Informatics is an academic study covering wide research areas and it includes computer science and information engineering, as well as life science, the humanities, social sciences and other fields. Informatics has developed remarkably through academic research activities with in-depth research and interdisciplinary approach across various fields. As a result of these activities, informatics is expected to become an academic infrastructure that will provide support for all areas of social and economic activities. The fruits of the study of informatics are expected to return to society. NII puts a strong emphasis on the basic research, in addition to application of its results, aiming to build an academic information infrastructure, such as construction of network environments and of information resources, etc.

Thus, NII is now organizing as an inter-university research institute with two main purposes — systematic research regarding informatics and development and maintenance of a basic infrastructure for distribution of academic information. In the aspect of research, NII will focus on not only the research development of the informatics field from basic to application but also on promoting joint academic research in wide areas in cooperation with universities and research institutions, and private companies of in and outside Japan. Moreover, in the area of maintaining and developing academic information infrastructure, NII constructs and applies Science Information Network and also provides various academic information services through utilizing the results of informatics research. NII is putting forward their best efforts toward solving the problems related to information by implementing research activities as well as development and operation activities as if those were two wheels of a vehicle.

The global scale of today's rapid advancement and wide spread of information communication technologies have brought not only new possibilities but also several problems such as digital divide, security, etc. The importance of the role of NII has increased in this new "Information Century" as the main core institute for the study of informatics and distribution of academic information. The staff of NII wants to work hard so that the results of informatics research at NII will contribute not only to academic research and science technology, and to the industrial and economic development but also to the advancement of people's lives and culture.

July 2001

Yasuharu Suematsu
Director General, National Institute of Informatics
Mission and Strategies of the National Institute of Informatics

NII was founded in April 2000 as an Inter-University Research Institute to undertake the comprehensive research on informatics and to developing infrastructure for the distribution of scientific information. NII covers broad from the basic to the application of informatics related research, such as network, software, multimedia, under a long-term perspective. At the same time, NII makes every effort to advance informatics research through the cooperation of universities, national research institutes and private research institutions.

Comprehensive Research Ranging from Basic to Applied Subjects
NII develops highly academic research in the field of information science over the long term and in a wide array of subjects, varying from the natural sciences to the humanities and social sciences. And NII implements various research coherently, which covers subjects ranging from the basic to applied, and from the theoretical to the practical.

Interdisciplinary Approach
NII promotes interdisciplinary work, including across-the-board cooperative research in diverse fields, and collaboration among broad academic disciplines, and contributes to the development of entire academic field providing an effective means for more sophisticated and comprehensive academic research.

Partnership with Industry, Government, and Academic Sectors
NII promotes close partnership with universities, national and private research institutes, and endeavours significant development in the informatics research in Japan. At the same time, NII implements project-type joint research in cooperation with these and promotes the utilization of the outcomes of research in society.

International Research Activities
NII endeavours to disseminate its research information internationally, promoting exchanges of researchers between foreign institutes involving and conducting international joint research. Further, NII is making a significant contribution to the development of international standardization.

Development of Infrastructure for Science Information
NII plays key role in the development of an infrastructure for science information in Japan through the construction and operation of the Science Information Network, the production of union catalog database of academic books and serials in university libraries, the creation of science information databases, and the education and training programmes for staff of university library.
Scope of the Research at National Institute of Informatics

"Informatics," the focus of NII’s work, is a new field that embraces a broad range of themes in areas such as the humanities, social sciences, and life sciences, as well as computer science and information engineering. The seven research divisions listed below are charged with carrying out core informatics research from a mid-to long-term perspective, and ranging from basic to applied themes. Further, the two Research Centers at NII are committed to research in the areas of testbeds and prototyping of research and to research and development regarding the accumulation and utilization of scientific information resources.

Research Divisions of NII

<table>
<thead>
<tr>
<th>Collaborative research</th>
<th>Dissemination of research results</th>
<th>International cooperation</th>
<th>Education</th>
<th>Training, etc.</th>
</tr>
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<tbody>
<tr>
<td>The International and Research Cooperation Department</td>
<td></td>
<td></td>
<td></td>
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</tr>
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</table>

Architectures

- Infrastructure Systems Research Division
  - To realize high-performance, high-functional infrastructure systems for information

Foundations of Informatics

- Foundations of Informatics Research Division
  - To provide formal theories to respective Research Divisions

Intelligent Systems Research Division

- To construct systems to support people's intelligent activities

Software

- Software Research Division
  - To create new software concepts

Media and software systems

- Media Information Research Division
  - To pursue the issue of how people and the media should interact

Software

- Media Information Research Division
  - To pursue the issue of how people and the media should interact

The Research Center for Testbeds and Prototyping

Construction of the foundations of science information

The Research Center for Informatics Resources

The Development and Operations Department

Informatics aims to encourage in-depth research in areas related to research and education as well as spurring the rapid advancement of interdisciplinary research involving collaboration between different fields of study. It is hoped that this will result in the formation of a scholarly infrastructure capable of supporting all aspects of our socioeconomic activities. NII, an inter-university research institute, is uniquely characterized by the fact that it, through the Research Divisions shown in the Table above, is committed to the construction of close links and cooperation with other universities and institutes in Japan and foreign countries and the promotion of joint research projects based thereon, and, simultaneously, to the development of the foundations of scientific information and the provision of information services. Therefore, it is expected for NII to effectively combine its advanced research on informatics and its practical expertise for the creation of new products that will meet urgent needs among universities and society.
Foundations of Informatics Research Division

This Research Division aims at formulating basic concepts and theories of informatics through the multi-faceted and comprehensive pursuit of basic research on information such as computational theory; algorithm; numerical analysis; artificial intelligence; cognitive science; and bioinformatics. Further, this Division covers the study of methodologies and implementation with which such concepts and theories are materialized and applied.

- Foundations of Algorithms Research
- Mathematical Informatics Research
- Symbolic Reasoning Research
- Cognitive Science Research
- Bioinformatics Research (by visiting researchers)

Research on Type Theory and Constructive Logic:
Type theory is used to mathematically analyze the concepts of types of programming languages, an issue that has attracted increasing attention in recent years. Constructive logic is obtained from usual logic by deleting the law of the excluded middle, and its proofs include algorithms. It has been found that these two systems, which were originally different research issues, have isomorphic correspondence. This research covers type theory, constructive logic and the correspondence between them.

Research on Numerical Analysis and Theory of Computation:
We are doing research on the convergence of iterative methods for singular linear systems arising, for instance, in the numerical solution of partial differential equations; iterative methods for eigenvalue problems and their validated computation. Another research issue is to consider the problem of how difficult it is and what the minimum required tools are in order to compute a function, through the theories of computation and proof, and to apply these theories to developing an automated theorem prover.

Research on Symbolic Processing:
We study the processing of artificial symbols used in logic and also related areas such as natural language processing and case-based reasoning. In logic-based symbolic processing we study advanced mechanisms such as non-monotonic reasoning and order-sorted logic. In the related areas we do research on automatic semantic annotation of human language texts using XML based on advanced machine learning techniques and also case-based reasoning using multi-media data.

Research on Type Theory and Constructive Logic:
Type theory is used to mathematically analyze the concepts of types of programming languages, an issue that has attracted increasing attention in recent years. Constructive logic is obtained from usual logic by deleting the law of the excluded middle, and its proofs include algorithms. It has been found that these two systems, which were originally different research issues, have isomorphic correspondence. This research covers type theory, constructive logic and the correspondence between them.

Cognitive Science Research on Thought and Language:
We study how people use graphics and/or memos for problem solving, how people organize discourse by means of speech and gesture, etc. from the viewpoint of Cognitive Science including, but not limited to, Artificial Intelligence and Psycholinguistics.

Research on Speech and Gesture:
The above picture shows a scene from the videotaped data in which the person on the left is retelling a cartoon story to the one on the right. Using the audio-visual data like this, this research conducts psycholinguistic analyses on the way in which discourse is organized through the concurrent speech and gesture.

Research on Support System for Genome Analysis:
To meet the sharp increase in the genome and other biological data, theories, technologies and issues with regard to the collection, evaluation, management and effective use of such data are studied. Moreover, high-precision, high-speed algorithms for the analysis of structure of human genome and for the analysis of production amount of human genes have been designed and published.

Learning from tagged XML-text.
The figure shows how semantic annotations can be inserted into text in XML form so that computers can learn how to annotate new texts automatically.

Please visit http://research.nii.ac.jp/ for details of these research projects.
Infrastructure Systems Research Division

Research is conducted on implementation methods for computer systems and computer networks — the fundamental elements of information technology. Through cutting-edge research, high-performance computer systems will be developed that are capable of complex data processing operations not possible with conventional computers, and high-performance computer networks will be built to support the distribution of information in a smooth and secure manner.

In these ways we hope to propose a new type of information infrastructure to support an information-centered society.

- **Computer Architecture Research**
- **Network Architecture Research**
- **Functional Network Research**
- **Information Networking Research**
- **Network Security Research (by visiting researchers)**

**Research on the Application of Router Management Information:**
To guarantee the network connectivity soundness and reliability, comprehensive monitoring of various routing protocol information is required. And for this purpose, it is quite effective to make overall analysis of administrative information obtained from all routers composing the network. In this research, possible methods and underlying technologies are investigated.

**Research on the Development of Communication Quality Model:**
As communication networks become larger and more complex, it becomes more difficult to understand their action, e.g. the packet delay, but on the other hand, it is essential to foresee it to ensure high-quality communications. This research aims at approximating traffic and properties by expressing action of communications networks with numerical models.

**Research on Traffic Control for Assuring the Quality of Services in High-Speed Networks:**
As network bandwidth is increasing, and different types of traffic, including audio, video and data are being transmitted over it, it is important to satisfy the different quality requirements of each of these types of communication traffic. This research examines the characteristics of traffic patterns and try to schedule different applications in a manner that their quality requirements can be met.

**Research on Multimedia Synchronization:**
When sending TV programs, etc. via information networks, the image and the voice are transmitted through separate channels, and their transmission delays differ to each other. This research pursues the possible methods to prevent this problem.

**Research on Ubiquitous Computing Network:**
For a ubiquitous computing network comprising a large number of cooperatively working computers, a new seamless communication architecture is studied which accepts communications from a sender, automatically selects the appropriate communication device, medium, and service for a receiver, converts the sender’s message into the selected form, and forwards the converted message to the receiver.

Please visit [http://research.nii.ac.jp/](http://research.nii.ac.jp/) for details of these research projects.
Software Research Division

Research is performed on various concepts related to software; the core element in information processing. Through the systematic study of software aspects such as programming languages, data processing, and software developing methods, we aim to create new software concepts. Such research will enable substantial improvement on software capabilities, productivity, and reliability, and thereby make possible the development of more complex and sophisticated systems.

Research on Bibliography Integration Based on Fast Approximate String Matching:
This research focuses on the procedure of integrating bibliographic information contained in document images using a fast approximate string matching technique. The application of the procedure to scanned documents will make it possible to construct large-scale digital libraries.

Name-IT: Naming and Detecting Faces in News Videos
This research addresses content-based video indexing. The system associates faces and names in news videos as video annotation taking advantage of integrating image understanding and natural language processing techniques.

Research on Access to Information Space Based on Text Categorization
SVM (support vector machine) can classify documents flexibly by the similarity among them. This research aims at developing a high-level information retrieval interface through the application of this technique to human-computer interaction.

Mobile Agent:
This research aims at designing and implementing mobile agent, an active program that can move between computers, together with the systems to which mobile agents are applied.

Research on Extensible Distributed Operating Systems
This research focuses on the extensible distributed operating systems with much flexibility to which functions necessary for the operation can be added easily and safely to obtain higher level of distributed processing. The application thereof to large-scale real time systems is aimed at.

Please visit http://research.nii.ac.jp/ for details of these research projects.
The data handled in informatics research is in a variety of media formats, including text, images, and audio. Information media research aims to provide effective processing methods for expressing, analyzing, and retrieving data in various media formats. Through this work we hope to gain insights into the technical aspects of interaction between people and information media.

**Universal Multi-Point Position Input Device and Its Application:**
Utilizing RFID (memory chips with radio frequency communication capability) technology, we developed an universal position input device for a computer. This device reads and transmits the grid coordinates of the objects that are attached the RFIDs, therefore the computer can recognize the current arrangement of the multiple objects on the device. As its application we have introduced the system into elementary school classrooms for environment education program. When pupils manipulate the pieces which represent houses, factories and forests, the scene of a virtual town on the screen changes accordingly on real time.

**Coding of Chemical Reactions and the Development of Reaction Prediction Systems:**
The issues covered concern the possible methods to express, retrieve and systematically structure chemical data and to use such data to obtain useful knowledge that will allow the prediction of chemical reactions and spectra. The focal point of this research is how neural networks and other procedures are used to express and structure various complex chemical phenomena in order to make predictions.

**Image Processing Research**
**Multimedia Integration Processing Research**
**Information Retrieval Research**
**Computer Vision Research (Visiting)**

**Image Synthesis Based on Focal Point Free Change Technique:**
The procedure proposed here will allow for freely changing the focal points of two images, one focusing on a person (close view) and the other on the scene (distant view). With this method, easy image editing can be enjoyed, because the blur of out-of-focus images is precisely removed and correct contours obtained.

**Fast Retrieval Method for Multimedia Databases Based on the Distinctiveness of the Retrieval Results:**
When one searches a multimedia database for some similar multimedia information, unfortunate cases can occur when none can be found in the database. Our method predicts the number of results which will meet the similarity requirement. This enables us to improve the system efficiency by avoiding useless searching when the predicted number is very few.

**Multimedia Laboratory**
The Multimedia Laboratory is used exclusively for experiments related to multimedia. Here, it is possible to collect different kinds of sound in a soundproof room, to input special images with precision and/or high-speed cameras, and to carry out higher-level editorial processing.

Please visit [http://research.nii.ac.jp/](http://research.nii.ac.jp/) for details of these research projects.
By analyzing a variety of activities involving intelligence that can be observed in the natural world, such as the activities of human beings, this area of research explores ways to build systems and computers capable of "intelligent" behavior and systems for solving problems through appropriate collaboration with people. The ultimate aim of this type of research is the creation of systems that can support the intelligent activities of human beings and in some cases substitute for them.

Research on Distance Learning Environment
Providing distance learning environment is very important to ensure the equal opportunity for education regardless of geographical conditions and time restriction. This research pursues the advanced integrated distance learning environment for higher education in which both synchronous and asynchronous procedures are employed as well as collaborative learning.

Knowledge Symbiosis Project:
This research focuses on the knowledge symbiosis, which will allow the effective use of multiple of information that are separately contained in the Internet for the creation of new information distribution systems. One of the issues covered here is to identify algorithms to find the relations between separate Internet directories.

Research on Symbiotic Robots:
As part of the research on symbiotic information system (SIS) and with the aim of realizing the environment where people and robots coexist in a natural way, studies covered include of human-type autonomous robots, cooperative robots, intelligent interface via vision, phonetic interaction and intention understanding, and distributed agent techniques based on knowledge processing.

Research on Web Information Gathering Agent:
This research addresses the systems in which mobile agents moves to retrieve and collect information on behalf of users. For example, Mobeet is accessible from your portable telephone. (http://mobeet.ex.nii.ac.jp/).

Research on Network Community:
Systems to support network-based community activities are dealt with in this research. One example is a system to see the relations between people who have used bookmarks.

Please visit http://research.nii.ac.jp/ for details of these research projects.
Human and Social Information Research Division

This area of research examines issues related to information in the societal environment. Research topics include interaction between people and information in society; the distribution, management, and utilization of information; and social and systemic issues related to information. The ultimate aim is the systematization of informatics research from the viewpoint of the humanities and social sciences.

- Information Management Research
- Information Use Research
- Library Information Research
- Information Institution Research

Research on Analysis Model of Compound Words:

In what way the concepts inherent in our words should be expressed on computer?

Compound nouns, a condensed style of sentence, are taken up as starting point to identify possible methods to describe the concepts and the rules of language.

Research on Retrieval, Clustering and Summarization of Information:

- Research on retrieval and summarization of information using text structure; information retrieval in which opinions and facts are differentiated; browsing of documents.
- Research on user-adaptive cluster-classification methods:
- Techniques of user support for information retrieval via human-system interaction.
- Research on the integration of conventional scientific information tools and Web:
- Automatic construction of multi-lingual thesaurus; access to multi-lingual information
- Evaluation of information retrieval systems.

The test collections for information retrieval system evaluation that we have constructed are available for research purpose.

Research on Legislation on Information

Electronic money technology, in which digital data is used as money instead of notes and coins, allows us to realize Internet shopping and the mobile commerce, helping us realize more convenient life. This research addresses certain legal issues concerning information, such as privacy and/or cyber security, for the purpose of establishing more secured environment for the electronic commerce.

NTCIR: International Evaluation Conference on Information Retrieval and Text Summarizing Techniques:

The NTCIR is an international joint research of new type, where many researcher groups in Japan and other countries address common subjects using common large-scale experimental data sets, before comparing and examining the results for deeper understanding. Participants to the NTCIR were 33 groups in 6 countries and 45 in 8, in 1998/99 and 2000/01, respectively.

http://research.nii.ac.jp/ntcir/

Application of Distributed Knowledge Base in Medical Systems:

This research aims at constructing, with the use of an object-oriented model, the distributed knowledge base for medical diagnosis.

Please visit http://research.nii.ac.jp/ for details of these research projects.
Research Information Research Division

Academic researches in various fields require all sort of information as the input and they also produce new information as the fruit of the researches. This research division focuses on the role of this information and on systems for disseminating it effectively. In this way, we aim to promote sophistication of academic information infrastructure and to establish the informatics tailored scholarly information.

Analyzing international research trends based on databases of scholarly publications

Large databases containing abstracts of academic papers have been compiled to assist researchers and some of them are made available through NII to researchers. In addition to their usual use of searching relevant papers, these databases are also being subjected to sophisticated statistical analyses in order to identify trends in scholarly research.

International comparisons of information related research

The true state of informatics research in Japan and overseas can be elucidated by examining databases such as directories of researchers. By utilizing databases of academic information in this way, we hope to analyze the present state of scholarly research in every field and contribute to the development of an effective infrastructure for academic information, research system, science policies and the accountability of researches.

Analyzing characteristics of universities based on number of citations to scholarly papers

This project analyzes the level of activity of countries and institutions by examining the number of citations found in citation index databases. The number of times a paper is cited can be used as an index of the degree of its utilization. There is a particular need for citation analyses of this type focusing on Japanese academic papers.
The Research Center for Testbeds and Prototyping provides testbed facilities and promotes prototyping research for real field application. These activities are carried out as projects with universities, other national research institutes or laboratories in commercial sectors, as well as projects within NII. The aim is that fruits of empirical research of this sort will be incorporated into the academic information infrastructure and provide themes and inspiration for new research.

The Research Center for Testbeds and Prototyping plays the role of a common-use facility, offering a development environment for testbeds and prototypes that individual universities or research divisions cannot provide on their own. It also promotes joint research and academic information infrastructure development in the form of projects. The Office for Promotion of Research Projects draws plans for projects such as testbeds for high-speed networks or online journals as well as academic information infrastructure development, while the Office for Cooperative Research Programs plays a similar role for joint research projects. Projects advance under the direction of visiting researchers assigned to the above offices or to the research divisions, with the collaboration of outside researchers, and with assistance provided by the Development and Operations Department.

- Office for Promotion of Research Projects
- Cooperative Research Planning and Promotion Office
- High-Speed Network Laboratory (Visiting)
- High Quality Networking Laboratory (Visiting)
- Full-Text Contents Laboratory (Visiting)
- Virtual Library Laboratory (Visiting)

Please visit http://research.nii.ac.jp/ for details of these research projects.
Background
The recent increase of digital information both in amount and diversity have attracted strong attention to the contents of information, resulting in more vigorous research activities for the integrated access and use of massive and varied information. Many fields of informatics research are involved with processing methods and utilization of information resources, covering contents creation and processing software. To further extend the research in these fields, it is crucial to promote the development of information contents, research on content processing software, the standardization of information digitalization and related issues.

Mission
The Research Center for Information Resources, a research facility within NII, is charged with the following missions.
1. Collection and provision of information resources necessary for the pursuit of informatics research
2. Promotion of joint research that uses information resources
3. Promotion of research on information resources
In cooperation with the other sections in NII, universities and the industrial sector, the Center is promoting research on information resources, including the development of large-scale digital contents and related software and the standardization necessary for the development of digital contents.

Organization
The Research Center for Information Resources presently comprises two sections. The Office for Research Coordination and Promotion, which is staffed by fulltime researchers, in charge of planning co-operative projects as well as pursuing research on information resources. The Data Collection Laboratory, staffed by visiting researchers, is engaged in the development of test collections for use in multi-language text retrieval and holds workshops for promoting the shared use of compiled test collections.

Projects
The Center manages and plans the following cooperative research projects, related workshops and international conferences:
* Construction of large-scale test collections for the evaluation of information retrieval systems, and evaluation-type workshop (NTCIR Workshop) based on the test collections
* Compilation and evaluation of language corpus for the research on lexicon and syntax of languages
* Construction of video data collections with meta-data for the evaluation of advanced analysis and processing of video data
* 2001 International Conference on Dublin Core and Metadata Applications

Please visit [http://research.nii.ac.jp/](http://research.nii.ac.jp/) for details of these research projects.
Graduate Education Activities

NII Special Research Students (Fiduciary graduate students)
NII accepts graduate students from other universities as NII Special Research Students for the purpose of promoting its research activities as an inter-university research institute and of making a contribution to the development of education. In F.Y.2000, NII accepted three graduate students of the national universities, one in the doctor's course and two in the master's course, for guidance in their studies.

Cooperation for graduate school education:
NII has ample research results on scientific information database and on infrastructure systems of information communications, and effectively utilize them to cooperate with Graduate School of Information Science and Technology.

International Exchange

Admission of foreign scientist (in F.Y. 2001):

<table>
<thead>
<tr>
<th>Name, organization, nationality</th>
<th>Subject</th>
<th>Period</th>
</tr>
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<tbody>
<tr>
<td>PARADIS, François, [...]</td>
<td>Making use of hypertext and logical structure of documents</td>
<td>May-Oct., 2000</td>
</tr>
<tr>
<td>STEFANUK, Vadim Leevitch, [...]</td>
<td>Study on Advanced Intelligent Systems</td>
<td>Jun.-Mar. 2001</td>
</tr>
</tbody>
</table>

Visitors from foreign countries (in F.Y. 2000): 119

NII's researcher participants in international academic conferences designated by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) projects (in F.Y.2000): 3

Collaborative Research (in F.Y.2000)

NII, an inter-university research institution, provides the opportunities of mutual exchange and learning to researchers of national, public and private universities in Japan, while actively promoting many collaborative research projects. In F.Y. 2000, 15 such projects were carried out as shown below:


<table>
<thead>
<tr>
<th>Research Categories</th>
<th>Number</th>
<th>Awarded amount (¥1000)</th>
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<tbody>
<tr>
<td>Special Research Promotion (1)</td>
<td>1</td>
<td>4,900</td>
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<tr>
<td>Scientific research (A) (2)</td>
<td>3</td>
<td>24,900</td>
</tr>
<tr>
<td>Scientific research (B) (1)</td>
<td>1</td>
<td>6,000</td>
</tr>
<tr>
<td>Scientific research (B) (2)</td>
<td>4</td>
<td>19,300</td>
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<tr>
<td>Scientific research (C) (2)</td>
<td>1</td>
<td>800</td>
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<tr>
<td>Encouragement of Young Scientists (A)</td>
<td>9</td>
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<td>Publication of Scientific Research results</td>
<td>7</td>
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University-Industry Cooperation and Collaboration (in F.Y.2000)

Joint research with the private sector etc.

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Commissioned research

<table>
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<tbody>
<tr>
<td>8</td>
<td>Total 106,684</td>
</tr>
</tbody>
</table>

Grants and endowments

<table>
<thead>
<tr>
<th>Number</th>
<th>Amount received (¥1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Total 33,184</td>
</tr>
</tbody>
</table>
Dissemination of Research Results

NII has continued activities to organize lecture meetings and symposiums and to issue publications and publicity journals as a means of making feedback of the results of informatics research to the extensive areas in the society.

Open Lectures

NII held "NII Open lecture" on the theme of current developments of NII's research activities and operating services at Kansai area and Tokyo.

Symposiums and Study Meetings

The symposiums and study meetings organized by NII provide the opportunities for discussion on informatics from multi-faceted points by participant researchers from Japan and foreign countries. NII's Monthly Study Meeting plays an important role for mutual exchange among researchers and technology specialists who are interested in informatics, where the presentation of their studies and other events are carried out. NII is a research institution widely open to the society.

Publications

NII publishes books and periodicals detailing its research findings.

◆ NII Journal

NII issues its bulletin "NII Journal" twice per year, which carries the paper about research activities. And it provides also in Electronic Library Service (NACSIS-ELS) and Online Journal Publication System (NACSIS-OLJ).

◆ Informatics Series

"Informatics Series" is monograph series, which covers the research findings of NII or transcript of Open Lectures and published under the supervision of NII.

Publicity Journal

NII News, a publicity journal of NII, is issued every two months and distributed to introduce its research and development work, projects and other activities.
Development Work and Operation of NII

Once of the major roles of NII as an institution is the development and implementation of an advanced infrastructure for the distribution of science information. An science information infrastructure of the sort required to promote scholarly research must cover the aspects of networks, content, and applications, and there is a need to implement all three of these aspects in as advanced a manner as possible. This goal can be accomplished by applying the fruits of informatics research to the implementation and enhancement of the science information infrastructure in a rapid and timely fashion. For future informatics research to succeed, both of these activities need to proceed as one as with the two wheels of a car. The Development and Operations Department of NII is responsible for the building and operation of the science information infrastructure, collaboration with university libraries and academic societies, and systems development and operation. Through tight cooperation with research organizations, organizations and systems are being constructed to allow researchers to participate in the implementation of the science information infrastructure. By then applying the fruits of this research in a practical way, NII is contributing to the implementation and reinforcement of Japanese science information infrastructure.
Science Information Network

To promote informatics research in and the circulation of scientific information among universities and research institutions throughout Japan, NII has operated Science Information Network (SINET), an information network for scientific research which connects them via its network nodes, or points of presence. The network nodes are connected with high-speed dedicated lines, 405 Mbps at the maximum, and 763 institutions are connected via those network nodes as of April 30, 2001.

NII has achieved the mutual connection of SINET with high-speed testbed networks overseas, including Abilene in the U.S, DANTE in Europe, to facilitate the dissemination of scientific information and the tie-up with research networks on the international scene. In Japan, SINET has been connected to Inter-Ministry Research Information Network (IMnet), connecting national research institutions, etc., and to networks of Internet service providers (ISP), contributing to the wider circulation of research information offered by industry and university.

As an deployment of new research field, NII is planning to establish an ultra high speed network, Super SINET, whose bandwidth is 10Gbps, in January 2002. Super SINET will connect key institutions engaging in advanced scientific studies, such as high energy physics, space and astronomical sciences, genome information and super-computer interlocking (GRID). To meet new trends of faster communications and others, NII will continue to be committed to the efforts to develop the world most-advanced ultra high speed network technologies with the aim of realizing an optical network, capable of carrying signals of optical wavelengths.

<table>
<thead>
<tr>
<th>Line speed (Budget of Fiscal 2001)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic line 20–405 Mbps</td>
</tr>
<tr>
<td>International line 2–450 Mbps</td>
</tr>
<tr>
<td>Super SINET 10 Gbps</td>
</tr>
</tbody>
</table>

* National Institute of Informatics  
* Node of Super SINET  
* Node of SINET
The Catalog Information Service consists of the Cataloging System and the Interlibrary Loan System.

Cataloging System (NACSIS-CAT)

The Cataloging System (NACSIS-CAT) comprises union catalog databases of academic documents (books and serials) in the collections of institutions such as university libraries. These databases were compiled to support the research work of scholars and can be searched to determine instantly where specific materials are housed. Standardized cataloging data (MARC) is referred to when constructing databases in order to improve efficiency, and the work of inputting records is shared by university libraries and similar institutions throughout the country. The union catalog of books and serials, which consists of the databases compiled in this manner, can be accessed on the World Wide Web through the Webcat service.

### Participating Institutions

<table>
<thead>
<tr>
<th>Type of Institution</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Universities</td>
<td>99</td>
</tr>
<tr>
<td>Municipal Universities</td>
<td>70</td>
</tr>
<tr>
<td>Private Universities</td>
<td>413</td>
</tr>
<tr>
<td>Inter-university Research Institutes</td>
<td>14</td>
</tr>
<tr>
<td>Junior Colleges and Colleges of Technology</td>
<td>152</td>
</tr>
<tr>
<td>Other</td>
<td>109</td>
</tr>
<tr>
<td>Total</td>
<td>857</td>
</tr>
</tbody>
</table>

### Number of Database Records

<table>
<thead>
<tr>
<th>Database Name</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books Bibliography Holdings</td>
<td>5,752,000</td>
</tr>
<tr>
<td>Serials Bibliography Holdings</td>
<td>53,112,000</td>
</tr>
<tr>
<td></td>
<td>239,000</td>
</tr>
<tr>
<td></td>
<td>3,575,000</td>
</tr>
</tbody>
</table>
**Interlibrary Loan System (NACSIS-ILL)**

The Interlibrary Loan System (NACSIS-ILL) supports exchange of information among libraries to enable them to provide documents to researchers at universities and other institutions. The service employs latest information from the union catalog databases constructed by NACSIS-CAT for improved efficiency and to ensure prompt delivery of documents to users. Users of the system may also request materials from the National Diet Library and the British Library Document Supply Center (BLDSC).

### Access to Webcat

- **Webcat**
  - [http://webcat.nii.ac.jp/webcat-eng.html](http://webcat.nii.ac.jp/webcat-eng.html)

**Number of Search**

<table>
<thead>
<tr>
<th>Record category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photocopy</td>
<td>988,000</td>
</tr>
<tr>
<td>Loan</td>
<td>78,000</td>
</tr>
</tbody>
</table>
The Information Retrieval Service (NACSIS-IR) has accumulated some 100 million records covering all fields of the humanities, the social sciences, and the natural sciences in order to provide researchers speedy and precise access to science information. This information can be accessed online. The information available through NACSIS-IR comprises databases planned and created by NII (creating databases), databases obtained from database compiling institutions overseas and elsewhere (importing databases), and databases accepted from other researchers and institutions (assimilating databases).

<table>
<thead>
<tr>
<th>Registered data</th>
<th>Access to NACSIS-IR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Databases</td>
<td>Number of Records</td>
</tr>
<tr>
<td>58</td>
<td>105,982,000</td>
</tr>
</tbody>
</table>

**Utilization of NACSIS-IR**

**User Qualifications**
(1) Faculty, graduate students, graduate researchers, and students of universities (national, municipal, or private), junior colleges, colleges of technology, inter-university research institutions, and institutions under the jurisdiction of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) or the Agency for Cultural Affairs.
(2) Regular members of academic societies, research staff and library personnel of National Research Institutes or publicly owned research organizations, and research staff affiliated with research and higher educational institutions overseas.

**Fees for Use**
(1) Creating and importing databases: 50 yen/minute connected, 13 yen per hit
(2) Union catalogs and assimilating databases: 30 yen per connection

**Service Hours**
The service is available continuously with the following exceptions: 8:00 to 9:00 a.m. each Monday, March 31, periods of system maintenance.
For the broader dissemination and the precise evaluation and verification of research results, it is critical to specify the definitions and the ways of usage of scientific terms which all the researchers can accept. Therefore, much effort has been made in each of the scientific fields to standardize its specific scientific terms, having resulted in the publication of series of Japanese Scientific Terms. With the Online Scientific Terms (NACSIS-Sciterm) service, which was prepared after obtaining approvals of the Ministry of Education, Culture, Sports, Science and Technology and concerned academic societies who are the copyright holders of the contents of the series, the scientific terms contained in the series can be retrieved, via the Internet, free of charge. The Table mainly indicates scientific terms (in Japanese-Romaji, Kana and languages of western countries), parts of speech, terms for reference.

### Online Scientific Terms

For the broader dissemination and the precise evaluation and verification of research results, it is critical to specify the definitions and the ways of usage of scientific terms which all the researchers can accept. Therefore, much effort has been made in each of the scientific fields to standardize its specific scientific terms, having resulted in the publication of series of Japanese Scientific Terms. With the Online Scientific Terms (NACSIS-Sciterm) service, which was prepared after obtaining approvals of the Ministry of Education, Culture, Sports, Science and Technology and concerned academic societies who are the copyright holders of the contents of the series, the scientific terms contained in the series can be retrieved, via the Internet, free of charge. The Table mainly indicates scientific terms (in Japanese-Romaji, Kana and languages of western countries), parts of speech, terms for reference.

<table>
<thead>
<tr>
<th>Registered data</th>
<th>Access to NACSIS-Sciterm (as of F.Y.2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of registered Series</td>
<td>Number of registered scientific terms</td>
</tr>
<tr>
<td>24</td>
<td>108,000</td>
</tr>
</tbody>
</table>

*Launched from July 2000

### Academic Society HomeVillage

The Academic society HomeVillage is a listing of links to the Websites of academic societies. It is maintained as a service to these academic societies in order to assist them in disseminating information. The service also includes a search tool that allows users to locate Websites on the list using keywords. This provides an efficient way to obtain the latest research findings released by these societies. The links are listed both alphabetically by society name as well as classified into the fields defined by the Science Council of Japan.

<table>
<thead>
<tr>
<th>Registered data</th>
<th>Access to the Academic Society HomeVillage (as of F.Y.2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member of Academic Society HomeVillage</td>
<td>Details</td>
</tr>
<tr>
<td>628</td>
<td>Web hosting service</td>
</tr>
</tbody>
</table>
The Electronic Library Service (NACSIS-ELS) is an information service that enables users to retrieve via the Internet material from page image databases containing photographic reproductions of academic journals and magazines as well as with bibliographic information. Researchers can search for journal articles by title, author, or keywords from their computers. They can also select articles from tables of contents or by browsing through pages. Users can use local printers to make high-quality printouts of desired pages.

Currently the database includes mainly academic journals published by Japanese academic societies. The range of information available will expand in future as the number of participating academic societies increases.

As a tentative project of the Electronic Library Service, 35 of electronic journals issued by the Institute of Physics (IOP) in the UK and 171 of those by Oxford University Press (OUP) have been offered since F.Y. 2000 and F.Y. 2001, respectively.

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of registrants</td>
<td>3,840</td>
</tr>
<tr>
<td>Number of access</td>
<td>97,000</td>
</tr>
<tr>
<td>Number of displayed images</td>
<td>39,000</td>
</tr>
<tr>
<td>Number of printed images</td>
<td>55,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Registered data (as of May 2001)</th>
<th>Access to the OUP's journals (as of May 2001)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant academic societies</td>
<td>142</td>
</tr>
<tr>
<td>Journals</td>
<td>310</td>
</tr>
<tr>
<td>Articles</td>
<td>685,000</td>
</tr>
<tr>
<td>Number of pages of registered images</td>
<td>2,450,000</td>
</tr>
<tr>
<td>Number of registrant organizations</td>
<td>445</td>
</tr>
</tbody>
</table>
To support the publication as online journals of scientific journals issued by academic societies and universities, efforts to develop and construct the Online Journal Editing and Publication System (NACSIS-OLj:OnLine Journal) have been continued, in which they are electronically edited and published online. The System consists mainly of the following two elements:

(1) Electronic Editing System:
The Electronic Editing System, operated by respective academic societies or universities, performs a series of functions of processing control and document processing, from writing and contributing manuscripts to receiving, reviewing, editing and lay-outing them, and further to preparing printing block copies and electronic manuscripts.

(2) Online Journal Publication System:
The Online Journal Publication System, operated by NII, provides scientific journals as online journals via the Internet.
Surveys of Academic Research Activities

It is essential to gather information about the research activities of universities and research institutes and to provide it as a database. The information is important to advance research and development, encourage partnership with universities, research institutes, industry and community and to transmit the information internationally. Simultaneously, it is extremely significant from the standpoint of the evaluation of research findings, for easy access to information, the responsibility to explain research findings to the public and to foster understanding. To meet those needs, NII implements the survey of academic research activities under the cooperation of the researchers in universities and research institutes and then NII compiles the results of the survey into a database and makes it available to the public. The results of this survey are used for research about the trends and status of academic research and basic data for policy making for science and higher education.

Survey of Academic Research Activities / Directory of Researchers

NII carries out the "Survey of Academic Research Activities" every year, targeting researchers in universities and research institutes in Japan. Based on the results of the survey, NII compiles the "Directory of Researchers". The directory is available in NACSIS-IR and its data is published as a book and a CD-ROM titled "Directory of University Professors and Researchers in Japan". The key data is available to the public via the "Directory of Research Activities and Resources". Furthermore, NII provides the results of the data to university from which data was gathered.

Registered data:
Information on researchers based on F.Y. 2000 Survey: 161,970 records

Survey for the Compilation of Database Providing a Conspectus of Research Activities at Universities and Other Institutes / NACSIS-DIRR (Directory of Research Activities and Resources)

NII carries out the survey to gather information about the researchers in universities and research institutes, research subjects and research resources including academic facilities and materials in order to provide the collected information to researchers, universities and research institutes, to secure excellent researchers, to distribute effectively research resources, and to encourage joint research with the industry, academic and government sectors. The "Directory of Research Activities and Resources" is produced from the results of the survey and is available via World Wide Web. This is a joint project of NII and the Japan Science and Technology Cooperation.

Registered data:
Based on F.Y. 2000 Survey
Research institution / research subjects: 13,448
Researchers: 117,570
Research resources: 2,187

Survey of Status of Science Information Databases / Database Directory

NII carries out the "Survey of Science Information Databases" annually to collect information on databases which are produced for science research in Japan. The "Database Directory" is produced on the basis of the latest information of this survey. It is released through the Information Retrieval Service (NACSIS-IR). In addition, the result of the survey is published under the title of "Status Report on Science Information Databases", that is essential data sources indicating current status of science databases in Japan.

Registered data:
Information on database based on F.Y. 2000 Survey: Approx. 3,000
International Activities of NII Services

It is essential to promote the distribution of science information on a global scale, in order to raise the standard of science research. NII has continued not only to augment a service of providing scientific information internationally but also to strengthen its relationships with overseas universities and institutions. This helps access overseas scientific information easily, which belongs universities and institutions in foreign countries. Thus, NII makes a meaningful contribution to distribute scientific information internationally and works for the development of international standardization.

Cooperation with overseas Institutions of Japanese Studies and Libraries

Twenty-five of universities, institutions and libraries in Europe and Asia, which carry Japanese data, have participated in Cataloging System (NACSIS-CAT) of NII. More than 200,000 academic documents were registered here from those overseas universities and institutions. In addition, the "Science Information Exchange Project with China" was initiated in 1998. NII offers assistance to the computerization of the catalogue records of the Beijing Center for Japanese Studies with the cooperation of the Japan Foundation.

### Overseas NACSIS-CAT Participating Institutes

| Oriental and India Office Collections, The British Library | University of Munich, Institute of East Asian Studies, Japanese Studies |
| Cambridge University Library | The Japan Cultural Institute in Cologne, The Japan Foundation |
| Bodleian Library, University of Oxford | Japan Cultural Center, Bangkok, The Japan Foundation |
| School of East Asian Studies Library, University of Sheffield | Beijing Center for Japanese Studies |
| Scottish Centre for Japanese Studies, University of Stirling | China Agricultural University Library |
| School of Oriental and African Studies, University of London | Library of Dalian University of Technology |
| The Japan Foundation London Language Centre | Peking University Library |
| Department of Japanese Artigities, The British Museum | Wuhan University Library |
| Institute of East Asian Studies, Duisburg University | Library of Nanjing University |
| East-Asian Library, Katholieke Universiteit Leuven | Library of Zhejiang University |
| Department of Japanese Studies, University of Heidelberg | Jilin University Library |
| Japanische Bibliothek, Abteilung Japanologie, Ostasiatisches Seminar der Universität Zürich | Institute of Japanese Studies, Hallym Academy of Sciences, Hallym University |
| The Asia Library, Stockholm University | |

International Activities of Science Information Service

- **Inter-Library Loan System (NACSIS-ILL)**
  The Inter-Library Loan System of NII is linked with one (ARTTel) of the British Library Document Supply Centre (BLDSC), which makes it possible for researchers in Japan to photocopy and borrow of documents in the same way other institutes in Japan offer to the researchers.

- **Information Retrieval Service (NACSIS-IR)**
  NII provides a database service, which is planned and prepared by NII, for overseas universities and research institutions.

- **Electronic Library Service (NACSIS-ELS)**
  NII offers the Electronic Library Service (NACSIS-ELS) to overseas universities and research institutes, which enables overseas researchers to utilize academic journals published by Japanese academic societies.

International Projects

In addition to the services mentioned above which are: "Science information Exchange Project with China" and "Project for Improvement of Document Delivery Service between U.S. and Japan", NII has carried out various international projects with the cooperation of overseas universities and research institutions; "Thai-Online-Project" via international network with Thailand, hosting or participating in workshops internationally regarding the exchange of scientific information, international cooperation and training programs on scientific information, etc.
**Advanced Training Programs**

NII carries out various education and training programs designed to provide opportunities to catch up specialized and advanced technologies for staffs dedicating to support academic researchers at universities and research institutes.

**NII Seminar**
This seminar trains leading staffs for supporting academic researchers by providing hands-on experience performing actual research work.

**Network Training Course**
This course provides opportunities to catch up recent and advanced network technologies for staffs administering and operating network services at universities and research institutes.

**NACSIS-CAT Advanced Training Course**
This course trains leading staffs of NACSIS-CAT service in the participating university libraries.

**NACSIS-IR Advanced Training Course**
This course trains instructors of guidance or training courses on how to use the NACSIS-IR service held at their institutions.

**User-Training and Guidance Program**

NII offers user-training courses and guidance courses in NACSIS services. Regional courses are also offered in conjunction with university libraries in order to expand the range of opportunities. The following types of user-training courses and guidance course are offered.

**NACSIS-CAT Training Course**
**NACSIS-ILL Training Course**
**NACSIS-IR Guidance Course**

**Provision of the Self-learning System**

NII offers a self-learning system (NACSIS-SL) to enhance the user's learning experience, with which the user can learn our services through the Internet. NACSIS-ILL study course is the first production of NACSIS-SL.

**Support for User Training Sponsored by Universities**

In order to support guidance or user-training course of NACSIS services sponsored by universities and academic societies, NII offers some support programs, such as to provide training text or materials, to advice about curriculum, and to assign of user-ID.

**International Training**

In cooperation with related organizations, NII carries out training for staffs dedicating to support researchers at academic research institutions in foreign countries.
Board of Councilors

Members advise the Director General regarding plans for NII projects and other important matters related to management and operations.

Toshiharu Aoki
President and Chief Executive Officer, NTT Data Corporation

Hiroo Iguchi
Professor Emeritus, University of Tokyo

Yoneo Ishii
President, Kanda University of International Studies

Michiyuki Ueno
Professor Emeritus, Tama University

Hitoshi Osaki
Director General, Center for National University Finance

Masanori Otsuka
Professor Emeritus, Tokyo Medical and Dental University

Kimio Ohno
President, Hokkaido Information University

Takayasu Okushima
President, Waseda University

Tsunoru Kikkawa
Professor Emeritus, National Institution for Academic Degrees

Masataki Kikyo
Professor Emeritus, University of Tokyo

Nobuaki Kumagai
Professor Emeritus, Osaka University

Yoshihide Kozai
Director, Ganna Astronomical Observatory

Hirota Sugawara
Director General, High Energy Accelerator Research Organization

Junjiro Takahashi
Vice President, Keio University

Michiko Tomma
Professor Emeritus, Tsuba College

Tatsuo Nishida
Professor Emeritus, Kyoto University

Yoichi Matsuno
Director General, National Institute of Japanese Literature

Wataru Mori
Professor Emeritus, University of Tokyo

Hiroyuki Yoshikawa
President, The University of the Air.

Advisory Council for Research and Management

Advisory Council for Research and Management Members provide advice and suggestions to the Director General regarding joint research programs and other important matters related to the operation of NII, in response to requests from the Director General.

Setiawati Arikawa
Head of Library, Kyusyu University Library

Yasuhiro Inagaki
Professor, Graduate School, Division of Engineering, Nagoya University

Hitoshi Inoue
Professor Emeritus, National Center for Science Information Systems

Haruo Kuroda
Director, Research Institutes for Science and Technology, Science University of Tokyo

Masao Sakatauchi
Director General, Institute of Industrial Science, University of Tokyo

Ryoei Shimizu
Professor, Faculty of Commerce, Tokyo International University

Mikio Takagi
Professor, Faculty of Science and Technology, Science University of Tokyo

Northou Doi
Professor, Faculty of Science and Technology, Keio University

Hisao Yamada
Professor Emeritus, University of Tokyo

Kazuto Kawamoto
Professor, The University of the Air.

Katsuki Wakahashii
Professor Emeritus, Gunma University

Takamitsu Sawai
Planning and Coordination Director (Deputy Director General), NII

Kijii Ono
Executive Director of Research, NII

Takahashi Hamada
Director, International and Research Cooperation

Mitsutoshi Hatori
Director, Development and Operations Department, NII

Sholchiro Asano
Director, Infrastructure Systems Research Division, NII

Katsuni Maruyama
Director, Software Research Division, NII

Hariuki Ueno
Director, Intelligent Systems Research Division, NII

Eiyo Nakai
Director, Human and Social Information Research Division, NII

Masayoshi Negishi
Director, Research Information Research Division, NII

Advisory Board

Members provide general advice and suggestions to the Director General regarding informatics research and the development and implementation of an infrastructure for dissemination of academic information, in response to the Director General's requests.

Isao Arai
Director General, Institute for Higher Education

Keiji Itai
President, Japan Audio-Visual Education Association

Ken-ichi Inaba
Professor Emeritus, Osaka University

Sougo Okamura
President Emeritus, Tokyo Denki University

Michio Okamoto
Special Advisor, International Institute for Advanced Studies

Masahiro Kawasaki
President, The Japan Science and Technology Corporation

Hiroshi Kida
Advisor, New National Theatre Foundation

Hiromi Koyama
Professor Emeritus, National Institute of Japanese Literature

Tosaka Shimizu
President, Tokyo Kasei University

Masahiro Tani
Chief Librarian, National Diet Library, Japan

Saburo Nagakura
Chairman, Kanagawa Academy of Science and Technology

Tetsu Ichikawa
Professor Emeritus, Nagoya University

Tatsuo Matsuoka
Professor Emeritus, National Institute of Polar Research

Arno A. Penzias
Former Senior Technology Advisor, Bell Laboratories, Lucent Technologies U.S.

Edward E. David, Jr.
President, EED, Inc., Former Science Advisor to the President of the United States

James L. Flanagan
Vice President for Research, Rutgers, the State University of New Jersey U.S.

John M. Thomas
Professor, Cambridge, University

Lewis M. Branscomb
Professor Emeritus, Center for Science and International Affairs

Lotfi A. Zadeh
Professor in the Graduate School and Director, Initiative in Soft Computing University of California at Berkeley U.S.

Walter L. Engel
Professor Emeritus, Rheinisch-Westfalische Technische Hochschule Aachen (RWTH) Deutschland (Germany)

Professors Emeritus (NACSIS: National Center for Science Information Systems)

Kimie Ohno
President, Hokkaido Information University

Hiroshi Ioue
Professor Emeritus, University of Tokyo

Atsunobu Ichihara
Professor Emeritus, Tokyo Institute of Technology

Hitoshi Yamada
Professor Emeritus, University of Tokyo

Tatsuo Nishida
Professor Emeritus, Kyoritsu University
Organization/Budget, Staff

Advisory Board
Board of Councilors

Advisory Council for Research and Management

Director General
Planning and Coordination Director (Deputy Director General)

Yasuharu Suematsu  Takamitsu Sawa

Annual revenue settled (F.Y. 2000) (Unit: ¥)

| Industry-university cooperative research income | 117,281,280 |
| Miscellaneous revenues | 49,878,824 |

Annual expenditure settled (F.Y. 2000) (Unit: ¥)

<table>
<thead>
<tr>
<th>Category</th>
<th>Personnel cost</th>
<th>Supplies cost</th>
<th>Industry-university Cooperative Research</th>
<th>Equipment Improvement cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>National School Special Account</td>
<td>1,121,479,762</td>
<td>8,687,085,903</td>
<td>104,783,489</td>
<td>761,517,000</td>
<td>10,674,866,154</td>
</tr>
</tbody>
</table>

Staff (F.Y. 2001)

<table>
<thead>
<tr>
<th>Director General</th>
<th>Planning and Coordination Director (Deputy Director General)</th>
<th>Professors</th>
<th>Associate Professors</th>
<th>Research Associates</th>
<th>Subtotal</th>
<th>Administrative Officials</th>
<th>Technical Officials</th>
<th>General Employees</th>
<th>Subtotal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>28</td>
<td>28</td>
<td>17</td>
<td>75</td>
<td>34</td>
<td>33</td>
<td>10</td>
<td>77</td>
<td>152</td>
</tr>
</tbody>
</table>

Circled figures ○ indicate non-Japanese Visiting Research Scholars. Figures in parentheses ( ) indicate Japanese Visiting Researchers.
National Center of Sciences (Chiyoda-ku, Tokyo)

The "National Center of Sciences" was established as a focal point for science research in informatics fields, academic exchanges, the dissemination of science information, and partnership with society, in order to promote academic research infrastructure in Japan. Its building was completed in December 1999. The Center has 4 institutes: NII, the Hitotsubashi University Graduate School of International Corporate Strategy, the Center for National University Finance, and the National Institution for Academic Degrees. The Center aims to form a sophisticated base for intellectual creativity by utilizing in a comprehensive manner the academic functions of each institute. In the lower floor of the building, there are conference facilities, including the Hitotsubashi Memorial Hall. These are available for use for a various activities, such as international conferences, lectures and other academic meetings, organized by national universities.

Library

The library of NII is a specialized library on informatics that collects scientific books and journals related to informatics. In addition it offers online journal services for inhouse researchers.

Numbers of books, journals and journal titles:

<table>
<thead>
<tr>
<th>Data category</th>
<th>Number of books</th>
<th>Number of journals</th>
<th>Number of journal titles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Published in Japan</td>
<td>10,624</td>
<td>12,050</td>
<td>183</td>
</tr>
<tr>
<td>Published overseas</td>
<td>6,109</td>
<td>8,949</td>
<td>273</td>
</tr>
<tr>
<td>Total</td>
<td>16,733</td>
<td>20,999</td>
<td>456</td>
</tr>
</tbody>
</table>
Chiba Annex (Inage-ku, Chiba City)

The Chiba Annex is a facility for computer systems and networking equipments, which are used to operate the Science Information System and to provide the science information services. It was built in November 1994 and is located in the Chiba Experiment Station of the Institute of Industrial Science of the University of Tokyo.

International Seminar House for Advanced Studies (Karuizawa Town, Nagano Prefecture)

The International Seminar House for Advanced Studies was built in March 1997 in Karuizawa, Nagano Prefecture, as a venue for international conferences, seminars, and training. It has a seminar room (capacity: 46 persons), accommodations, and other facilities. It is widely utilized not only by NII but also by other universities and research institutes.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 1973</td>
<td>A proposal is made to achieve an &quot;Improvement of a Distribution System for Academic Information&quot; in the Third Report (Basic Policies for the Promotion of Scholarship) of the Science Council.</td>
</tr>
<tr>
<td>May 1976</td>
<td>The Research Center for Library and Information Science (RCLIS) is established at the University of Tokyo.</td>
</tr>
<tr>
<td>April 1983</td>
<td>The Center for Bibliographic Information is established at the University of Tokyo. (This involves reorganizing the Research Center for Information and Library Science.)</td>
</tr>
<tr>
<td>December 1984</td>
<td>The Catalog Information Service is started.</td>
</tr>
<tr>
<td>April 1986</td>
<td>The National Center for Science Information Systems (NACSIS) is established. (This involves reorganizing the Center for Bibliographic Information, University of Tokyo.)</td>
</tr>
<tr>
<td>April 1987</td>
<td>Operation of Science Information Network and Information Retrieval Service (NACSIS-IR) is started.</td>
</tr>
<tr>
<td>April 1988</td>
<td>The Electronic Mail Service (NACSIS-MAL) is started.</td>
</tr>
<tr>
<td>January 1989</td>
<td>The Science Information Network is linked to the National Science Foundation (NSF), U.S.A.</td>
</tr>
<tr>
<td>January 1990</td>
<td>The Science Information Network is linked to the British Library (BL), U.K.</td>
</tr>
<tr>
<td>April 1992</td>
<td>The Inter-Library Loan System (NACSIS-ILL) is started. Operation of Internet backbone network service (SINET) is started.</td>
</tr>
<tr>
<td>November 1993</td>
<td>Mutual utilization by Japan Information Center of Science and Technology (JICST) users and NACSIS users becomes possible via a gateway connection.</td>
</tr>
<tr>
<td>April 1994</td>
<td>NACSIS-ILL is linked to the British Library Document Supply Centre (BLDSC).</td>
</tr>
<tr>
<td>October 1995</td>
<td>An international connection is established, linking the Science Information Network to Thailand.</td>
</tr>
<tr>
<td>April 1996</td>
<td>NACSIS-ILL System is connected with the National Diet Library (NDL).</td>
</tr>
<tr>
<td>March 1997</td>
<td>International Seminar House for Advanced Studies (Karuizawa, Nagano Prefecture) is completed.</td>
</tr>
<tr>
<td>April 1997</td>
<td>The Electronic Library Service (NACSIS-ELS) is started.</td>
</tr>
<tr>
<td>February 2000</td>
<td>Operations move to building of National Center of Sciences (Hitotsubashi, Chiyoda-ku, Tokyo).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 1998</td>
<td>A proposal entitled &quot;Promoting Computer Science Research&quot; is published by the Science Council of Japan. It calls for a core informatics research institution be established as an inter-university research institute.</td>
</tr>
<tr>
<td>April 1998</td>
<td>The Core Institution for Scientific Research in the Information Field Coordination Office is established, and a committee is formed in May.</td>
</tr>
<tr>
<td>March 1999</td>
<td>The Core Institution for Scientific Research in the Information Field Coordinating Committee issues its report.</td>
</tr>
<tr>
<td>April 1999</td>
<td>The Core Institution for Scientific Research in the Information Field Preparatory Office is established, and a committee is formed in May.</td>
</tr>
<tr>
<td>July 1999</td>
<td>The Core Institution for Scientific Research in the Information Field Preparatory Committee issues its interim report.</td>
</tr>
<tr>
<td>March 2000</td>
<td>The Core Institution for Scientific Research in the Information Field Preparatory Committee issues its final report.</td>
</tr>
<tr>
<td>April 2000</td>
<td>The National Institute of Informatics (NII) is established. (This involves the reorganization of NACSIS and assumption of its functions.)</td>
</tr>
</tbody>
</table>
Contact Information

General information about NII
Tel.03-4212-2000

About disclosure of official information
General Affairs Division, Planning and Regulation Section
Tel.03-4212-2020, 2021 Fax.03-4212-2035

Information about publicity
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Information about joint research
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Information about international exchange
Research Cooperation Division, International Affairs Section
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Information about the Science Information Network
Network System Division, Network Planning and Development Section
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Information about applying to use information services
Planning and Coordination Division, Users Support Section
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Information about the Catalog Information Service (NACSIS-CAT/NACSIS-ILL)
Contents Division, Contents Management Section
Tel.03-4212-2355 Fax.03-4212-2375 E-mail:catadm@nii.ac.jp

Information about the Information Retrieval Service (NACSIS-IR) (how to use, description)
Application Division, System Development Management Section
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Information about the Electronic Library Service (NACSIS-ELS) (how to use, description)
Contents Division, Image Contents Section
Tel.03-4212-2315 Fax.03-4212-2375 E-mail:els@nii.ac.jp

Information about the Online Journal Editing and Publication System
Application Division, Network Software Technology Section
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Information about Academic Society HomeVillage
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Information about surveys of academic research activities
Information about information service on research activities and resources at universities and other institutes
Publicity and Survey Division, Publicity and Survey Section
Tel.03-4212-2135 Fax.03-4212-2150
E-mail:dirr@nii.ac.jp

Information about dissemination and training projects
Dissemination Activities Division, Planning Section
Tel.03-4212-2165 Fax.03-4212-2180 E-mail:edu@nii.ac.jp

Homepage of National Institute of Informatics
http://www.nii.ac.jp/index.html
National Institute of Informatics

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