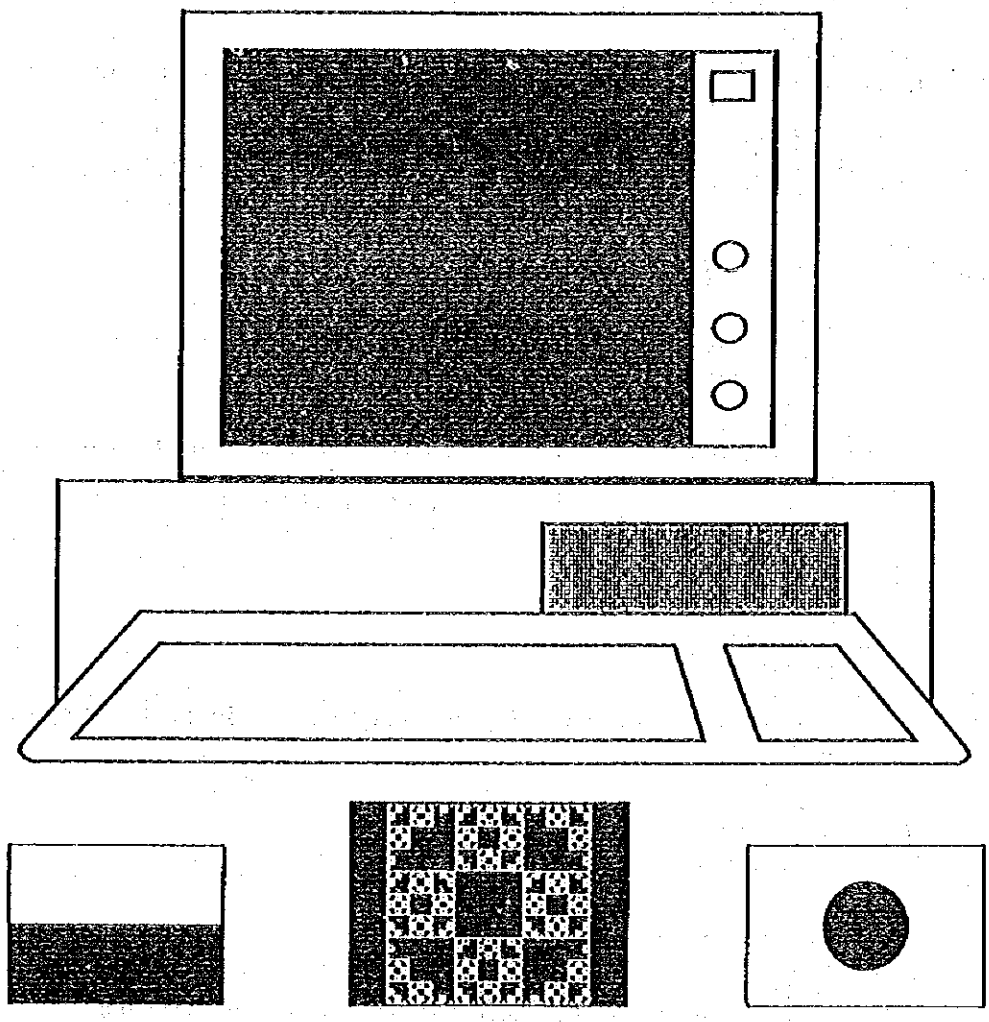
附属資料９－１．ポーランド政府からの正式要請書

The Polish - Japanese Cooperation Project in Education, Research and Development of Applications of Computer Techniques



Warsaw - Tokyo
January 1995

1. Introduction
2. Background
   a. Plan for the development of Information Technology in Poland
   b. Education
   c. Research and development of education and applications of computer techniques
   d. Motivation for cooperation between Poland and Japan
   e. Short history of cooperation between the governments of Poland and Japan in the domain of education, research and development of applications of computer techniques
      i) The Polish - Japanese Environment of Computer Techniques (PJSTK)
      ii) The Polish - Japanese Institute of Computer Techniques (PJWSTK)
3. Fundamental objectives
   a. Education
   b. Research and development of education and applications of computer techniques
   c. Other
4. Scope of the Project domains
   a. Education
      i) Universities, institutes and Colleges
      ii) Education at The Polish - Japanese Institute of Computer Techniques
      iii) High schools
      iv) The state administration
      v) Industry and economic activities
   b. Research and development of education and applications of computer techniques
      i) Universities, Institutes and Colleges
      ii) R & D at The Polish - Japanese Institute of Computer Techniques
      iii) PAN and KBN
      iv) Seminars
      v) Symposia
   c. Other
5. Specific objectives of the Project
   a. Education
      i) Universities, Institutes and Colleges
      ii) Education at The Polish - Japanese Institute of Computer Techniques
      iii) High schools
      iv) The state administration
      v) Industry and economic activities
   b. Research and development of education and applications of computer techniques
      i) Universities, Institutes and Colleges
      ii) R & D at The Polish - Japanese Institute of Computer Techniques
      iii) PAN and KBN
      iv) Seminars
      v) Symposia
   c. Other
6. Project administration
   a. Steering Committee
   b. Implementation Body
7. Staff requirements for direct Polish - Japanese cooperation inside the Project
   a. JICA experts
      i) Long term
      ii) Short term
   b. Polish Counter Parts
8. Facilities and equipment
   a. Premises
   b. Equipment
      i) Computers and multimedia equipment
      ii) Electronic Data Interchange (LAN, MAN, WAN)
      iii) Software
      iv) Books, Journals, Periodicals (paper, electronic and multimedia form)
      v) Educational and Scientific apparatus
9. Implementation Plans

Annex 1 Preliminary list of tasks in education

Annex 2 Preliminary list of tasks in research and development of education and applications of computer techniques

Annex 3 Project organization scheme

The Polish - Japanese Cooperation Project in Education, Research and Development of Applications of Computer Techniques

1. Introduction

The development of every country depends greatly on the skillful application of techniques of gathering, processing and distributing information. The more businesses and the public administration are computerized according to user needs, the better and cheaper are final services and products.

In the face of the rapid changes in the field of computer techniques and the accompanying changes in management, organization, production and distribution of goods and services, the skillful use of computer techniques is becoming more important and more difficult. In view of the greater need to apply computer techniques in almost every job, high priority is given to expanding education and scientific research in this field as much as possible.

Work on planning the development of computer applications in Poland has accelerated with the creation of the post Prime - Minister Commissioner for Information Technology in Poland. The realization of this plan requires raising the level of education, research and development in this field.

The progress in education, research and development in the application of computer techniques is so important and complex that close cooperation between countries with different work cultures and different traditions in the technical, natural and social sciences is highly desirable.

This document contains a description of PROJECT TYPE COOPERATION between Poland and Japan in the Education, Research and Development of Applications of Computer Techniques.

2. Background

a. Plan for the development of Information Technology in Poland

The government of Poland recognizes great importance to the application of computer techniques in Poland. Prime - Minister Commissioner for Information Technology has elaborated a plan of actions in this field. Considering the supreme values of the further growth of a sovereign and secure state, the plan contains packages of actions which include:

- system and legislation changes for proper legal infrastructure for development of Information Technology (intellectual property, public procurement rules, tax motivation rules, etc. ...).
- modernization of the information model of the state and treating it as the basis for national information and telecommunication projects,
- integration of information science and telecommunications,
- support to the development of education, research and development in the application of computer techniques,
- creating adequate organizational structures in the state administration for realization of the plan.

Among the new priority actions taken under the government plan for the application of computer techniques in Poland, the following deserve special altitude:

- the creation of a Government Center for Information Science and Telecommunications to act as government operator, integrator of scattered information systems and as a center for coordinating training,
- planning and building a Spatial Information System (GIS) in Poland to provide the indispensable information infrastructure to enable the planning and optimization of economic activities and for supporting work on planning spatial development in Poland.

The Polish - Japanese Cooperation Project in Education, Research and Development of Applications of Computer Techniques

The plan for the development of applications of computer techniques is coordinated at the Office of the Council of Ministers level by the Prime - Minister Commissioner for Information.

b. Education

The educational system in Poland is based on an 8-year elementary school, followed by education in general high schools, technical or vocational schools. After receiving his or her secondary school leaving certificate a student may apply for admission to a college or university.

The educational program in applications of computer techniques in elementary and secondary schools needs to be constantly modified to keep up with scientific and technical progress. Numerous attempts to introduce so-called "author's" programs are being made in selected classes of elementary and secondary schools. The realization of these programs encounters great obstacles. One of the difficulties is lack of funds for basic equipment in computer labs, including software and creating simple local information transmission networks between schools. If well-equipped libraries of books and educational materials on computer data carriers offering their services in the networks were to arise in Poland, then access of schools to networks of the INTERNET type would be of vital importance.

There are very many highly talented young people in secondary schools, and universities. It is worth attempting to organize two attractive international contests for the best commuter programs written by young people. One of these contests would be for secondary school students, the other for college students in Poland, Japan and other interested countries. If the prizes were attractive (e.g., personal computers, connection of the winning school to the INTERNET, or a trip to the partner's country for four people from the winning team from a college or university) actions of this kind would arouse the interest of young people in important problems in the field of computer technique applications and contribute greatly to the students' development.

The Polish - Japanese Cooperation Project in Education, Research and Development of Applications of Computer Techniques

In Poland there are some universities and institutes with long traditions in the theoretical and natural sciences (especially philosophy, logic, mathematics, physics, biology, medicine, etc. ...). However, because of lack of appropriate experience, in Poland there are considerable problems in teaching the practical aspects of computer application techniques at academic level. This is especially true in the techniques of management, organization and cooperation in various phases of planning, generating, using and modernizing complex information and organizational systems.

It is also worth emphasizing that education in the application of computer techniques cannot be perceived as learning the skill to use computer techniques. Also just the ability of analyze, design, build and maintain domain independent information systems is not enough. It is important to learn how to apply the advances in these techniques in the solution of specific practical domain depended problems (e.g., in medicine, economics, etc.). This aspect should be considered in expanding education in the application of computer techniques.

Educational activities in Poland are coordinated by the Ministry of Education.

c. Research and development of education and applications of computer techniques

Due to the scale, diversity and interdisciplinary nature of computer technique applications, working out and systematically developing suitable teaching programs is a very difficult and complex problem. Especially because - it is important to combine work on these problems with deep understanding of directions of research and development progress in this area versus practical needs and knowledge from the information technology industry. Persons preparing educational programs must take into consideration the fact that scientific research will make advances between the time the program is prepared and the time it is put into educational practice. Hence the authors of these educational programs must have a good understanding and feeling of development and applications trends and the pace of changes. It would be a mistake to isolate these persons from the possibility of conducting their own

research, just as it would be wrong to isolate them from cooperation with practitioners from various sectors of the economic and public administration.

Research and Development government policy in Poland is coordinated by the Committee for Scientific Research (KBN) and the Polish Academy of Sciences (PAN).

d. Motivation for cooperation between Poland and Japan

The governments of both countries Poland and Japan give a high priority to education, research and development in the application of computer techniques.

For decades in Poland was highly centralized economical system. This had an impact on both the economy, small scale of transfer of technology and consequently low level of education, research and development in the practical application of computer techniques. On the other hand, basic research in the fundamental and natural sciences moved forward considerably in Poland. For example universally acknowledged are the accomplishments of the Polish school of mathematics and logic, whose pupils occupy prominent positions in academic centers all over the world. In Poland there are many experienced practicing physicians who can cooperate on new techniques in diagnosing and treating diseases. Apart from these traditions, Poland has unique practical experiences in the implementation of sweeping, comprehensive social and economic reforms both on the micro- and macro-scales. **In consequence of these traditions and experiences, there is growing awareness in Poland of the need for skillful support of all these processes with professional knowledge in applications of computer techniques.**

Proper development of education and educational and scientific research is so costly that, practically speaking, there are no countries which can afford to act independently in this field without cooperating with other countries. Under such cooperation several interesting initiative have already been taken in Poland with the countries of Western Europe and the USA. Poland is interested in diversified assistance in the transfer of modern technology from the highly developed

countries. At the same time, Poland is convinced that in the future this assistance will turn into partner-like cooperation beneficial to both sides.

In Poland Japan is perceived as a very good candidate for a strategic partner in this field for the following reasons: Japan's economic and technological position, its geographic location in a rapidly growing region of the world, and naturally complementary cultural features (e.g., strong individualism of Poles versus the ability of Japanese to work effectively in teams).

Having in mind above and combining the very high technological level of Japan with the education, research and development traditions in basic and natural sciences in Poland it should bring benefits to the citizens of both countries

e. Short history of cooperation between the governments of Poland and Japan in the domain of education, research and development of applications of computer techniques

i) The Polish - Japanese Environment of Computer Techniques (PJŚTK)

Based on the cooperation between the governments of Poland and Japan, the project for the construction and development of the Polish-Japanese Environment for Computer Techniques (**PJŚTK** - in Polish: Polsko - Japońskie Środowisko Technik Komputerowych) was launched on the turn of 1993. The Center will be based on the following three pillars to be erected in order:

i) Polish-Japanese Institute of Computer Techniques **(PJWSTK)** (in Polish: Polsko - Japońska Wyższa Szkoła Technik Komputerowych),

ii) Research and development Center,

iii) Forum of Computer Companies.

Actually the first semester at PJWSTK is now ending. There are around 90 students and PJWSTK has already started promotion action for the second academic year.

ii) The Polish - Japanese Institute of Computer Techniques (PJWSTK)

An innovative program for teaching computer techniques in PJWSTK was written in the first half of 1994. The program was written with the close cooperation of many specialists from Poland, Japan, and the USA. This program was a key element of the application lodged with the Ministry of Education for according PJWSTK the status of a school of higher education. This application, especially the educational program, received a very favorable opinion and was approved. In parallel to this, premises were made ready to hold classes for the first year, a computer network with the appropriate hardware and software was designed especially for the needs of the program, an electronics and a foreign language lab were set up. A promotional campaign was launched, pre-admission talks were held with candidates to the school, and the teaching staff was selected. In October 1994 the first academic year commenced with 90 students in attendance. The official opening lecture was given by Prime Minister W. Pawlak. Also present at the ceremony from the Polish side were Deputy Prime Minister Łuczak, who is also Minister of Education (MEN), M. Car, the Prime - Minister Commissioner for Information Technology, Saryusz-Wolski, Government Commissioner for European Integration and Foreign Assistance, Minister J.K. Frąckowiak, Secretary of the Committee for Scientific Research (KBN), and many other influential personalities from politics, industry, universities and Polish Academy of Sciences. Present from the Japanese side were Ambassador Nagao Hyodo as well as top-level embassy employees, Toshio Nakamura, Director of JICA for Europe, and representatives of Japanese companies with branch offices in Poland.

The Polish - Japanese Cooperation Project in Education, Research and Development of Applications of Computer Techniques

The first semester at PJWSTK is now ending. It shows that the programs, technical facilities, and staff were up to the task. The School works closely with Warsaw University, the Warsaw Institute of Technology, and the Polish Academy of Sciences.

No serious problems are being encountered in adaptation of the new home of PJWSTK and in preparing for the new academic year. PJWSTK jointly with Polish Academy Sciences, Warsaw Technical University, and the Prime - Minister Commissioner for Information Technology will hold an international scientific symposium on Intelligent Information Systems in June 1995. The honorary patron of the symposium is Prime Minister W. Pawlak.

PJWSTK is a convenient platform for expanding cooperation between Poland and Japan in the development of education and educational and scientific research in the application of computer techniques.

3. Fundamental objectives

a. Education

i) Educating a high class of specialists in practical aspects of modern computer applications in the industry, economy and public administration.

ii) The transfer to Poland of modern Japanese technical thought and popularization of the Japanese culture of work in information and organization technologies.

iii) Creating, development and maintenance of infrastructure for active cooperation between educational entities from Poland and Japan in the domain of information technology and telecommunications.

b. Research and development of education and applications of computer techniques

i) Analysis, design, production, promotion and distribution (especially in Poland and Japan) new methods, tools and software for education of application of computer techniques.

ii) Implementing important for both countries research and development projects of education and applications of computer techniques (for example large - scale knowledge bases, soft computing, massively parallel distributed computing, etc.)

iii) Launching joint Polish-Japanese activities based on the latest educational and scientific-technical research for the development and application of modern information and organization technologies and also taking into consideration the possible benefits for both countries from combining their diverse experiences, traditions and accomplishments in education, culture, science and technique.

iv) Starting up interesting educational, scientific and research and development programs in the applications of modern computer techniques with a view to generating new technologies.

v) Creating, development and maintenance of infrastructure for active cooperation between research and development of Poland and Japan in the domain of information technology and telecommunications.

c. Other

i) Creating, development and maintenance of infrastructure for active cooperation between industrial and commercial entities from Poland and Japan in information technology and telecommunications.

4. Scope of the Project domains

a. Education

Annex 1 presents an initial proposal of the tasks to be accomplished. Only after a detailed discussion by experts from both sides and feasibility study of the

proposed tasks it will be possible to determine which tasks will become part of the project. These tasks may be grouped in subjects according to the following key:

I) Universities, Institutes and Colleges

Close cooperation of staff to promote practical aspects of computer techniques in Polish schools of higher education.

II) Education at The Polish - Japanese Institute of Computer Techniques

It is expected that the School will maintain a high level of professional training in the application of computer techniques. At the same time, efforts will be made to start up several branches of the School in other cities; after a few years of experience, the School will be ready to apply for the right to award the engineer's and master's degrees. It is planned that an important new element of the School's activities will be to open a modern library of textbooks and educational aids available in the traditional form and through a computer network.

III) High schools

It is planned to enter into ever closer cooperation with secondary schools. On the one hand - though personal contacts: seminars, symposia, and contests (for example, with computer equipment and access to the INTERNET for secondary schools as prizes). On the other - through involvement of the School in expanding Internet offers for schools in education (libraries of books, counseling in information science, programming, including educational software).

iv) The state administration

Cooperation in training and technical assistance for government agencies. In particular assistance in organization of Government Center for Information Science and Telecommunications and following cooperation with the Center.

v) Industry and economic activities

Participation in training on a mass scale for industry jointly with the Center for Productivity.

b. Research and development of education and applications of computer techniques

Annex 2 presents an initial proposal of the tasks to be accomplished. Only after a detailed discussion by experts from both sides and a feasibility study of proposed tasks it will it be possible to determine which tasks become part of the project. These tasks may be grouped in subjects according to the following key:

i) Universities, Institutes and Colleges

ii) R & D at The Polish - Japanese Institute of Computer Techniques

iii) PAN and KBN

iv) Seminars

v) Symposia

c. Other

Organization and maintenance of Forum of Computer Companies.

5. Specific objectives of the Project

Only after a detailed discussion by experts from both sides and a feasibility study of proposed tasks in Annex 1 and Annex 2 will it be possible to determine specific objectives for the domains the project. These objectives may be grouped in subjects according to the following key:

a. Education

i) Universities, Institutes and Colleges

ii) Education at The Polish - Japanese Institute of Computer Techniques

iii) High schools

iv) The state administration

v) Industry and economic activities

b. Research and development of education and applications of computer techniques

i) Universities, Institutes and Colleges

ii) R & D at The Polish - Japanese Institute of Computer Techniques

iii) PAN and KBN

iv) Seminars

v) Symposia

c. Other

6. Project administration

It is assumed Project will be implemented based on organizational scheme as defined in Annex 3.

a. Steering Committee

A body defining tasks covered under the project, canvassing for funds to accomplish these tasks, and monitoring their proper execution. The following persons are suggested for the Polish Side of Steering Committee:

i) Honorary Chairman - M. Car, the Prime Minister Commissioner for Information Technology,

ii) Chairman - Director P. Samecki,

iii) Representatives of interested ministries - e.g., Ministry of Education, KBN, Ministry of Finance, Ministry of Agriculture and the Food Economy, Ministry of Industry and Trade, etc.

iv) Representatives from Japan Embassy and from JICA Europe,

v) Represent of the Prime Minister's Commissioner for Information Technology - A. Jankowski.

b. Implementation Body

It is assumed that implementation will be coordinated by PJWSTK. Depending on needs, PJWSTK will cooperate with other educational and scientific centers in the realization of its tasks.

7. Staff requirements for direct Polish - Japanese cooperation inside the Project

a. JICA experts

This proposal is very tentative and will be adapted to the results of the feasibility study of the project

I) Long term

A group of four experts, which contains:

1. Education adviser,
2. PJWSTK management adviser,
3. R & D adviser,
4. Coordinator.

II) Short term

1. Four specialists (annually) from the fields covered by tasks defined as in the Annex 1 and the Annex 2, especially in multimedia, computer graphics, artificial intelligence, multimedia, virtual reality, multimedia knowledge systems scattered in remote computer networks, planning and generating complex information and organizational systems.
2. Two specialists (annually) of state administration.

3. Two specialists (annually) of large scale and multimedia database development and maintenance (planning, analysis, design, programming and build, testing, installing, staff training, administration, quality and change control, etc.)

b. Polish Counter Parts

Representatives of MEN, other interested ministries, PJWSTK and universities will be Polish Counter Parts. In the case of planned long term experts it is proposed following Polish Counter Parts:

1. Education adviser - Polish Counter Part from MEN,
2. PJWSTK management adviser - Polish Counter Part from PJWSTK,
3. R & D adviser, Polish Counter Part from Warsaw University,
4. Coordinator. Polish Counter Part form the Steering Committee.

The Polish Counter Parts of the short term JICA experts will be nominated at the beginning of each task defined in the Annex 1 and the Annex 2 from organizations or institutions related to corresponding task.

It is assumed that Polish Counter Parts will undergo intensive training by JICA to acquire a better knowledge of the culture, technique and science of Japan in that country

8. Facilities and equipment

In the short term the Project could start based on facilities and equipment which is already in the use by The Polish - Japanese Institute of Computer Techniques. Actually in the PJWSTK we have 46 PC computers (four computer laboratories), one Novel server and Local Area Network for 72 computers in temporary premises. In the PJWSTK we also have 2 lecture rooms and four computer laboratories (could be used as class-rooms), electronic lab and special room for foreign languages (English and Japanese). In September it is planned to hand over the new PJWSTK building for use. For the immediate future it can provide premises for the needs of the Project. However, few years

from now, depending on the range of tasks, it will become necessary to look for a new home. In general detailed description of Project facilities and equipment requirements is possible only after a detailed discussion by experts from both sides and a feasibility study of proposed tasks in Annex 1 and Annex 2. These requirements may be grouped in subjects according to the following key:

a. Premises

b. Equipment

i) Computers and multimedia equipment

ii) Electronic Data Interchange (LAN, MAN, WAN)

iii) Software

iv) Books, Journals, Periodicals (paper, electronic and multimedia form)

v) Educational and Scientific apparatus

9. Implementation Plans

The plan covers five years and will be able to be presented in more details after the tasks to be accomplished under the project are more precisely defined.

ANNEX 1
The Polish - Japanese Cooperation Project in Education, Research and Development of Applications of Computer Techniques
Preliminary List of Tasks in Education

Stage B - means to be started at the BEGINNING of the project
Stage M - means to be started at the MIDDLE of the project
Stage E - means to be started at the END of the project

No.	EDUCATIONAL TASKS	STAGE
I.	**Universities, Institutes and Colleges**	
1.	Organizing and starting up the Public Polish - Japanese Library of Computer Techniques containing: - publications and books in paper form and on computer media, - software and multimedia presentations for educational purposes. Implementation in Polish, Japanese and English languages WWW (World Wide Web) of information about Polish - Japanese cooperation in education of computer techniques.	B
2.	Polish - Japanese Contest for the best program for aiding decision making on the example of two-person games.	B
3.	Starting up an annual Polish - Japanese Symposium on Teaching Programs of Computer Techniques and their Applications in higher schools and universities.	M
4.	Education in the field of computer networks and telecommunications.	M
II.	**Education at The Polish - Japanese Institute of Computer Techniques**	
1.	Constant improvement of teaching programs at all levels in PJWSTK, especially developing a conception and educational practical projects for teaching key specialties in application of computer techniques, designing and building special laboratories for education (computer networks, robotics, computer vision, automated production lines).	B
2.	Organizing exhibitions and series of public lectures with demonstrations on Japan's accomplishments in work automation and information processing (in a "traveling" form - Warsaw, Center for Art and Technology in Krakow, Toruń, Lublin).	M
3.	Preparing PJWSTK for qualifying to grant bachelor and master's degrees.	E
4.	Establishing PJWSTK branches in other cities.	E
III.	**High schools**	
1.	Support to the "INTERNET for Schools" campaign and to subsequent government actions to utilize the Internet for educational and scientific research purposes.	B
2.	Starting up an annual Polish - Japanese Symposium on Teaching Programs of Computer Techniques and their Applications in secondary schools.	M
3.	Starting up a seminar - once every quarter for secondary school teachers on teaching computer techniques.	M
Iv	**The state administration**	
1.	Cooperation in organizing and starting up the Government Center for Informatics and Telecommunication to integrate information technology systems for administration.	B
2.	Training top officials in the latest computer techniques for assisting work of the public administration organized with Council of Ministers.	M

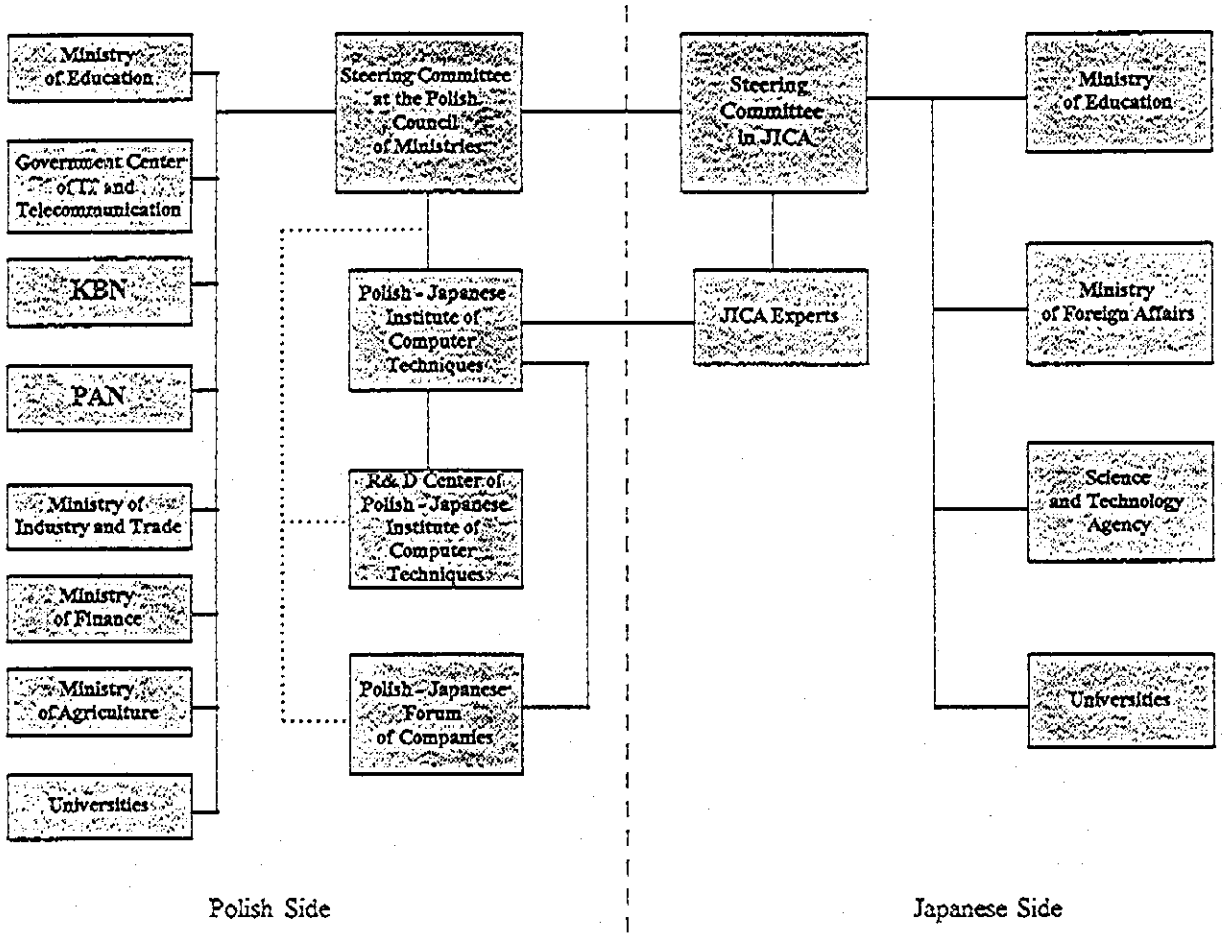
ANNEX 1
The Polish - Japanese Cooperation Project in Education, Research and Development of Applications of Computer Techniques
Preliminary List of Tasks in Education

	Starting up regular annual two-day training sessions for computer scientists from the public administration (the Prime Minister Commissioner for Information Technology, Representatives of Ministers, computer scientists of ministries and prefectural offices).	
3.	Training for government agencies in Poland in applications of computer techniques (Ministry of Finance, Tax Chambers, Tax Offices, Ministry of Labor and Social Policy - for administration and unemployed, Ministry of Agriculture and the Food Economy). Proposed scope of the training: office automation, introduction to data bases and networks, electronic storage of documents, introduction to maintenance and administration of Information Systems - especially such elements of information systems like: operating systems based on UNIX, networks base on Novell and UNIX, databases based on ORACLE and DB2 and introduction to computer tools for Business Process Re-engineering.	M
v.	**Industry and economic activities**	
1.	Training organized jointly with the Polish Center for Productivity.	B
2.	Training for banks in Computer Techniques in Banking System.	E

ANNEX 2
The Polish - Japanese Cooperation Project in Education, Research and Development of Applications of Computer Techniques
Preliminary List of Tasks in Research and Development of Education and Applications of Computer Techniques

No.	Research and Development Tasks
1.	**Large - Scale Knowledge Bases, in particular:** - analysis, design, implementation, maintenance and management of large scale knowledge bases, - projects in practical domains of large - scale knowledge bases using medical system, educational and scientific systems, - data and knowledge visualization, - knowledge discovery, - data mining, - parallel techniques for data management and search, - techniques for the dynamic specification of user requirements (varying over duration of the project), - processing of multimedia information in large data bases.
2.	**Soft Computing, in particular:** - software and hardware for solving problems by simulation of neural networks and evolution, - rough sets, - approximate reasoning, - parallel and distributed computing.
3.	**Intelligent Decision Support Systems, , in particular:** Aiding decisions with use of computer techniques (medical diagnosis, investment economic - games, planche games), robotics, distributed intelligent information systems.
4.	**Computer Techniques in electromagnetic applications** (jointly with Polish Society of Applied Electromagnetics and Japan Society of Applied Electromagnetics).
5.	**Multimedia, in particular:** - system for processing and recognition voice and images, data compression and coding data, - museums (Chopin Society) - education in planning, organizing and utilizing multimedia data bases cooperating with each other in a network. Model project to start up WWW (World Wide Web) in the Chopin Society.
6.	**Virtual Reality, in particular:** - designing courses on virtual reality and its practical applications (e.g. performing operations on patients from remote distances, driver education, moving in a high risk area, etc.), - search for applications of virtual reality technologies in various field.
7.	Starting up an exemplary workshop for robotics, automated production lines. Co-organization of a periodic conference on microprocessor applications in automation engineering and measurements.
8.	Co-organization of the **AUGUSTÓW'95 Conference.**
9.	WARMAN - Planning and constructing LAN, MAN, WAM data transmission networks from the angle of closer cooperation with info-highway operators in Poland.
10.	**Spatial and Geographic Information Systems for Poland** (SIP, GIS) - Development in cooperation with the Ministry of Spatial Economy and Construction and with the Council of Ministries.

The Polish - Japanese Cooperation Project in Education, Research and Development of Applications of Computer Techniques



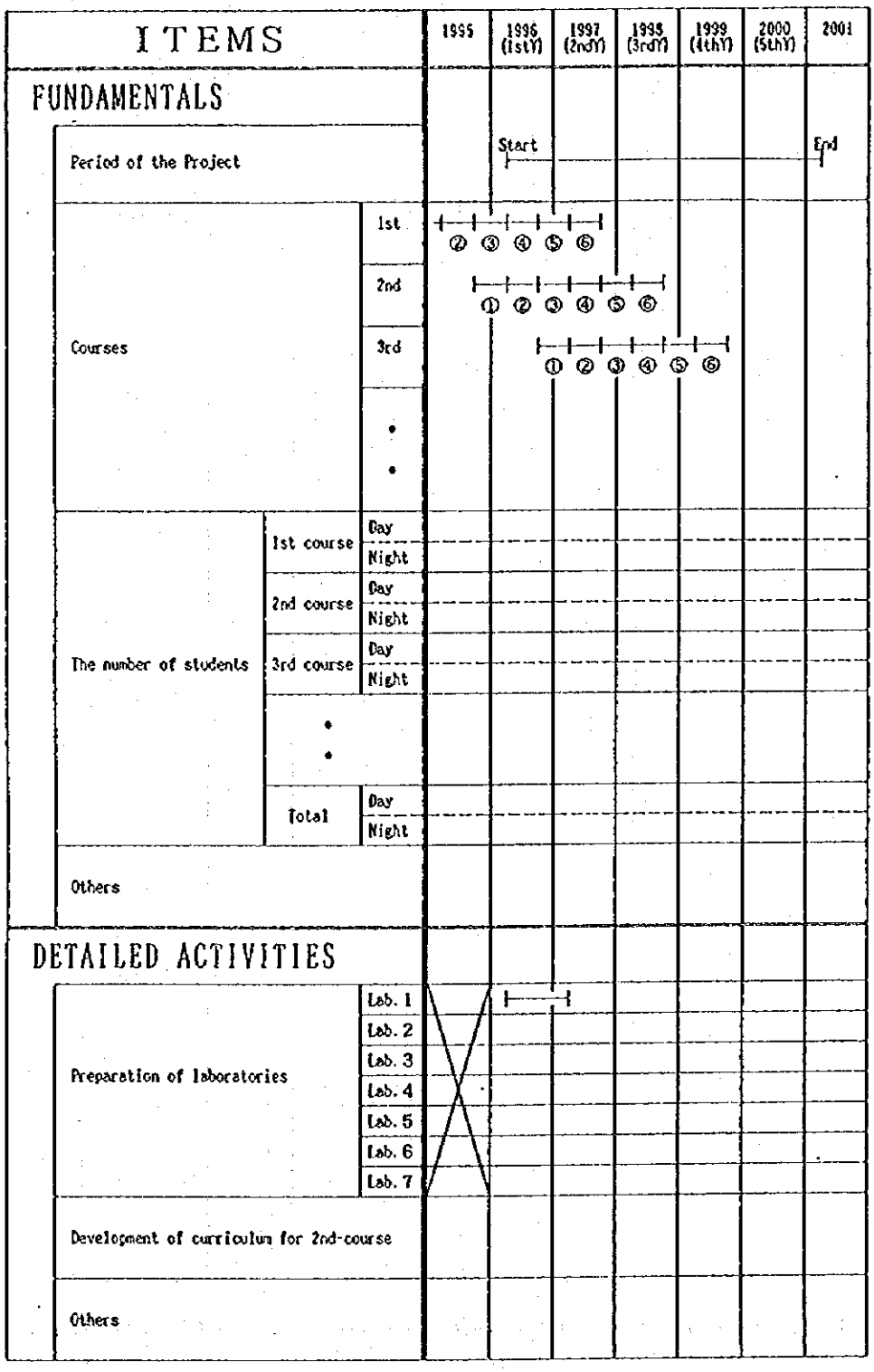
附属資料９－２．ポーランド政府からの正式要請書　日本語抄訳

協力分野	目　標	受入機関	具　体　的　内　容
１．教育	１．工業、経済及び行政におけるコンピュータの応用につき高レベルの専門家を教育する。	(1)大学及び研究所	(1)　大学及び研究所 ア．「ポ日公共コンピュータ技術図書館」の開設 ・コンピュータ・メディアに関する刊行物の発行 ・教育目的のためのソフト及びマルチメディアの発表 ・ポ日コンピュータ技術協力に係る情報のポーランド語、日本語及び英語によるWWW（世界ネットワーク）の設立 イ．２人ゲームの例に基づく、意思決定のための最良のプログラムを選ぶポ日コンテスト ウ．コンピュータ技術教育プログラム及びその高校・大学への導入に係る年次ポ日シンポジウムの開始 エ．コンピュータ・ネットワーク及び電気通信分野での教育
	２．情報及び組織技術における、日本的技術思考法及び日本の労働文化の大衆化をポーランドに移転する。	(2)ポ日情報技術大学	(2)　ポ日情報技術大学(PJWSTK)における教育 ア．PJWSTKにおける、全てのレベルにおいての教育プログラムの改善、特にコンピュータ技術の導入及び特別教育ラボラトリーの設立に関する重要分野を教えるための概念及び教育実践プロジェクトを開発すること。 イ．労働自動化及び情報処理の日本の到達レベルに係るデモンストレーションを含む展示会及び講演会を開催する。 ウ．PJWSTKが学士号及び修士号を出せる機関となるよう準備する。 エ．他の都市にPJWSTKの支部を設立する。
	３．情報技術及び電気通信分野におけるポ・日の教育団体間の協力のためのインフラ造り。	(3)高校	(3)　高校 ア．「各学校へインターネットを」キャンペーンへの支援、及びインターネットを教育・研究目的に活用するための政府活動に対する支援。 イ．「コンピュータ技術教育及びその高等学校への導入」ポ日年次シンポジウムの開始。 ウ．四半期に一度の、コンピュータ技術教育に係る高校教師を対象としたセミナーの開始。
		(4)行政組織	(4)　行政組織 ア．情報技術システムを行政に導入するための、「情報・電気通信政府センター」の組織化に係る協力。 イ．閣僚会議の行政活動を支援するための、高級官僚に対する最新コンピュータ技術研修。行政組織からのコンピュータ科学者（情報技術首相コミッショナー、大臣代理、各省・各県のコンピュータ科学者）に対する２日間の定期年次セッションを開始する。 ウ．ポーランド政府組織（大蔵省、国税委員会、国税庁、労働・社会政策省（失業対策）、農業・食糧経済省）におけるコンピュータ技術導入のための研修。 ＊想定される研究スコープ：オフィス・オートメーション、データ・ベース及びネットワークの導入、文書の電子保存、情報システム（特にUNIXをベースにしたオペレーティング・システム、NOVELL及びUNIXをベースにしたネットワーク、ORACLE及びDB2をベースにしたデータベース、リ・エンジニアリング・ビジネス・プロセスのためのコンピュータ・ツールへのイントロダクション）。
		(5)一般企業	(5)　工業・経済活動 ア．ポーランド生産性センターとの共同開催による研修 イ．「銀行システムにおけるコンピュータ技術」に係る研修

協力分野	目　標	受入機関	具　体　的　内　容
2．研究開発	1．コンピュータ技術導入教育のための新方式、ツール及びソフトの分析、デザイン、生産、改善及び配布。 2．コンピュータ技術導入教育に係るポ日両国における研究開発プロジェクトの設置。 3．最新の情報・組織技術の開発及び導入のための教育的・科学技術的研究に基づくポ日共同の活動を開始する。 4．新技術の開発を視点においた、コンピュータ技術の導入に係る教育・科学・研究・開発プログラムを開始する	1．大学及び研究機関 2．ポ日情報技術大学（研究開発センター） 3．科学研究コミュニティー、及びポーランド科学アカデミー 4．セミナー 5．シンポジウム	(1) 大スケール知識ベース 特に： ・大スケール知識ベースの分析、デザイン、設置、メインテナンス、及びマネージメント ・医療システム、教育システム及び科学システムを用いての大スケール知識分野での実地プロジェクト ・データと知識の可視化 ・知識発見 ・データ収集 ・データ・マネージメント及び検索のための平行技術 ・ユーザーの要求のダイナミック細分化の技術 ・大型データベースにおけるマツリメデイア情報処理 (2) ソフト計算 ・ネウラル・ネットワークのシミュレーション及び改善による問題解決のためのソフト及びハード ・ラフ・セット ・近似論証 ・平行・分布計算 (3) インテリジェント決定サポート・システム ・コンピュータ技術を用いての決定のサポート（医療診断、投資経済）、ロボット、分配インテリジェント情報システム (4) 応用電磁コンピュータ技術（ポーランド応用電磁工学会及び日本応用電磁工学会とともに） (5) マルチメディア 特に： ・音声・映像認識・プロセスシステム、データ圧縮、コーデイング・データ ・博物館（ショパン協会）各博物館がネットワーク上で協力するマルチメディア・データベースの計画、組織及び活用に係る協力。ショパン協会のWWW（世界ネットワーク）でモデルプロジェクトをスタート。 (6) バーチャル・リアリティ 特に：バーチャル・リアリティのコース・デザイン及びその実践への応用 ・様々な分野におけるバーチャル・リアリティー技術の応用研究 (7) ロボット、自動生産ラインに係る模範ワークショップの開始。自動エンジニアリング・計測のマイクロプロセッサ・アプリケーションに係る定期会議の共同オーガニゼーション。 (8) AUGUSTOW'95会議の共同開催 (9) ポーランドにおける情報ハイウェイ・オペレーターとの協力によるLAN,MAN,WANデータ通信ネットワークの計画及び構築 (10) ポーランドにおける空間・地理情報システム(SIP,GIS)空間経済・建設省及び関係会議との協力による開発
3．その他	コンピュータ企業フォーラムの設立及び活動の継続		

附属資料10－１．ポーランド側に作成を依頼した資料（大学の活動計画）

1. ACTIVITY PLAN OF THE INSTITUTE (EXAMPLE)



Note : " Priority of laboratory " can be modified in the futher study.

附属資料10－２．同　（主要必要機材）

2. MAJOR EQUIPMENTS NECESSARY FOR THE INSTITUTE DURING THE PROJECT (EXAMPLE)

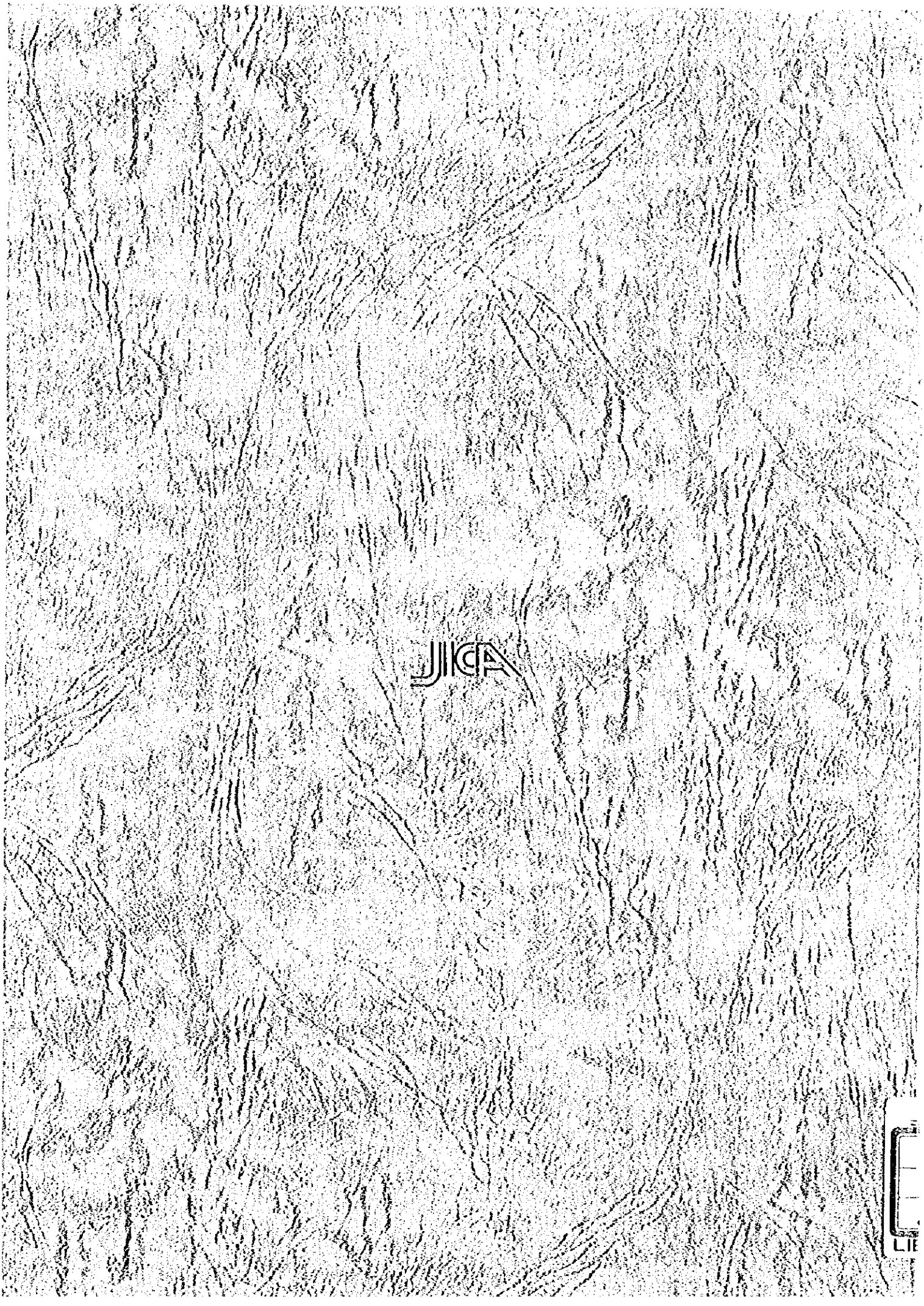
Category		Name or Specifications of equipments	Qys.	Remarks (Purpose, Usage, etc.)
Laboratory	Practice			
Lab.1 ( )	Practice.A			
	Practice.B			
Lab. 2 ( )	Practice.C			
	Practice.D			
• • •				
Lab. 7 ( )				
Others				

Note: Show the name of person in ( ) who will be in charge of each laboratory, if possible.

附属資料10－３．同　（予算計画及び要員配置計画）

3. BUDGET & MAN-POWER ALLOCATION IN THE INSTITUTE DURING THE PROJECT (EXAMPLE)

Category			1996 (1stY)	1997 (2ndY)	1998 (3rdY)	1999 (4thY)	2000 (5thY)	Total
MANPOWER-ALLOCATION (persons)								
	President	F-time						
		P-time						
	Vice president	F-time						
		P-time						
	Administrative section	F-time						
		P-time						
	Teaching section	F-time						
		P-time						
	Facility management section	F-time						
		P-time						
	Others	F-time						
		P-time						
	Total	F-time						
		P-time						
BUDGET ALLOCATION (US$)								
	Personnel							
	Electricity							
	Telephone							
	Photo-copy paper							
	Other stationery							
	• • •							
	Total							


JICA