

**INTEGRATED SERVICES DIGITAL NETWORK
COMMUNICATION BASIC ENGINEERING**

Jan. 7, '97 - Feb. 22, '97, 12 participants

ISDN基礎通信技術

J-96-00500

- 1. PURPOSE** The purpose of the course is to provide engineers in the field of telecommunications with practical knowledge and techniques on the ISDN (Integrated Services Digital Network) basic technology, user-network interface, and peripheral technology necessary for introduction of ISDN services.
- 2. MAIN FEATURES OF CURRICULUM** This course is designed for participants to understand the following: (1) outline of ISDN, network configuration, ISDN numbering plan, etc. (2) layer 1, 2, 3, circuit switching, packet switching, etc. (3) ISDN terminal, standardization trend, B ISDN (ATM), etc. The major subjects are; (a) outline of ISDN (b) user-network interface (c) ISDN network (d) ISDN service (e) ISDN terminal equipment (f) ISDN implementation plan (g) practical study (UNI)
- 3. QUALIFICATION OF APPLICANT** (1) university graduate majored in telecommunication or electrical engineering, or equivalent (2) under 40 years of age (3) working in telecommunication administration or common carrier organizations with at least three years of practical experience on their own switching systems
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Central Training Institute (CTI), Nippon Telegraph and Telephone Corporation (NTT)

RURAL TELECOMMUNICATION ENGINEERING

Feb. 11, '97 - Mar. 22, '97, 10 participants

ル-ラル通信技術

J-96-00458

- 1. PURPOSE** The purpose of the course is to introduce technological information on rural telecommunication systems to the participants so that they can acquire basic knowledge and skill concerning fundamental elements in making plans of actual network in rural areas of their countries.
- 2. MAIN FEATURES OF CURRICULUM** The first part of the curriculum includes lectures on rural telecommunication network designing method, and on various rural telecommunication systems. The second part is a drill practice, which is intended to simulate the rural telecommunication network designing augmented by the application of economic analysis.
- 3. QUALIFICATION OF APPLICANT** (1) university graduate specialized in telecommunications or equivalent (2) in charge of network planning or so scheduled (3) under 45 years of age
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) New ITU Association of Japan, Inc. (NITU-AJ)

**CBT COURSEWARE DEVELOPMENT
TECHNOLOGY FOR TELECOMMUNICATION**

Oct. 29, '96 - Dec. 8, '96, 8 participants

電気通信CAI(コンピュータ利用による)教材作成技術 J-96-00459

- 1. PURPOSE** The purpose of the course is to provide participants who are in charge of training at telecommunications training centers with a fundamental knowledge of CBT courses and the ability to develop CBT courseware. Through this course, participants will be able to learn the basic concepts of learning theory and practice of course analysis, design, development and implementation/evaluation methods.
- 2. MAIN FEATURES OF CURRICULUM** The major subjects in this course are; (1) basic concepts of CBT theory (2) CBT project management (3) CBT storyboarding (4) CBT courseware production (5) latest information about CBT course development (6) field trip and observation tour
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) person with sufficient practical experience at their own telecommunications training center, and preferably familiar with personal computers (3) under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japan Telecommunications Engineering and Consulting Service (JTEC) (3) Fujitsu International Engineering Limited (FIE)

**TELEVISION PROGRAMME PRODUCTION
ENGINEERING II**

Jan. 13, '97 - Mar. 9, '97, 10 participants

テレビジョン番組制作技術II

J-96-00495

- 1. PURPOSE** This course mainly covers programme production engineering, such as production in studio, outdoor and post production, etc. Participants can expect not only to get the latest information on TV engineering but also to improve their skills in programme production.
- 2. MAIN FEATURES OF CURRICULUM** The curriculum is mainly dedicated to advance participants' theoretical knowledge of TV facilities through lectures and practice on (1) video equipment, (2) TV cameras and solid-state image devices, (3) application of digital technique, (4) VTR and VTR editing, (5) special video effects and computer graphics, (6) latest broadcast technique, (7) direct satellite broadcasting. Several observation trips are organized to augment the lectures.
- 3. QUALIFICATION OF APPLICANT** (1) engineer serving in a broadcasting organization with at least five years of practical experience in TV engineering, or those who have knowledge of TV engineering enough to undergo this training course. It should be noted that this group training course is targeted for engineers. Programme directors are not appropriate to participate in this course. (2) university/college graduate or equivalent in electronic engineering
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) NHK Communications Training Institute

TELEVISION PROGRAMME PRODUCTION

July 9, '96 - Sep. 21, '96, 10 participants

テレビジョン番組制作

J-96-00496

- 1. PURPOSE** Producers and programme directors working for broadcasting stations in participating countries will be given opportunity to learn general knowledge and technical skills of programme production methods used in musical, cultural, dramatized and documentary production methods, and will receive suggestions for enriching their own TV programmes.
- 2. MAIN FEATURES OF CURRICULUM** The curriculum consists of lectures on general concepts of educational television, and various production techniques, practical training in programme production, and observation of actual production sites and local NHK stations.
- 3. QUALIFICATION OF APPLICANT** (1) serving in a broadcasting corporation directly and continuously as a producer or director with practical experience of two to seven years in the field of television programme production (2) under 35 years of age (3) university/college graduate or equivalent
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) NHK Communications Training Institute

TELEVISION ENGINEERING

July 9, '96 - Sep. 21, '96, 10 participants

テレビジョン放送技術

J-96-00497

- 1. PURPOSE** The purpose of the course is to systematically introduce knowledge of television broadcasting technology to participants who are engaged in the field of television broadcasting in participating countries. The training covers the technology of color television cameras, VTRs, studio equipment, transmission and reception.
- 2. MAIN FEATURES OF CURRICULUM** Lectures cover such topics as (1) color TV fundamentals and operation and maintenance of broadcasting equipment, (2) programme production techniques, (3) application of digital techniques, (4) measurement and adjustment of broadcasting equipment and (5) recent technical development. Lectures are supplemented by practice. Field training in small groups are organized to enhance the programme.
- 3. QUALIFICATION OF APPLICANT** (1) engineer serving in a broadcasting organization with practical experience of three to five years in TV engineering (2) university/college graduate or equivalent in electronic engineering
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) NHK Communications Training Institute

TELEVISION SOCIAL EDUCATION PROGRAMME II

Jan. 13, '97 - Mar. 9, '97, 10 participants

テレビジョン社会教育番組II

J-96-00498

- 1. PURPOSE** The purpose of this course is to introduce production technology and methods of NHK educational TV programmes to the producers and directors who are engaged in socially informative TV programme production. The training will focus on educational TV programme production. The participants are expected to further understand importance of education by TV, and to acquire necessary programme production techniques such as planning ability, manner of presentation, etc. In addition, state-of-the-art technology and future prospects of the broadcasting field are also introduced.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of Japanese system and situation. The course mainly covers; (1) trends in social education TV program (2) methods of TV program production (a) issuing cues (b) "complete programs" production method (3) production techniques (a) video location shooting (b) editing (4) new technology
- 3. QUALIFICATION OF APPLICANT** (1) serving and producing social education television programmes in a broadcasting corporation directly and continuously as a producer or director with practical experience of five to ten years (2) under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) NHK Communication Training Institute

BROADCASTING EXECUTIVES' SEMINAR II

Nov. 4, '96 - Nov. 24, '96, 9 participants

放送幹部セミナーII

J-96-00139

- 1. PURPOSE** The purposes of this Seminar are to introduce Japanese experiences, in the process of broadcasting development as well as present broadcasting activities and its related industries in Japan, to the participants, and to examine common problems in the field and to seek solutions through lectures, discussions and observations.
- 2. MAIN FEATURES OF CURRICULUM** This seminar covers the following themes; (1) broadcasting situation in the participating countries (2) outline of Japanese broadcasters (organizations, activities, finances, management in general, etc.) (3) personnel management and training (4) different types of broadcasting technologies and their utilization (5) role and utilization of broadcasting in education
- 3. QUALIFICATION OF APPLICANT** director general or equivalent high-ranking official responsible for management or administration of broadcasting in governmental or operational organizations
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Communication Policy Bureau, Ministry of Posts and Telecommunications

AUDIO BROADCASTING ENGINEERING

July 9, '96 - Sep. 8, '96, 10 participants

音声放送技術

J-96-00405

- PURPOSE** The purpose of the course is to provide audio broadcasting engineers with theoretical and practical knowledge of the intermediate level of audio technique, and MW and FM transmitting, through lectures, exercises and practices.
- MAIN FEATURES OF CURRICULUM** Lectures and practice are provided upon (1) audio technique, (2) theory and practice of MW broadcasting, and (3) theory and practice of FM broadcasting. Field practice and observation trips to relevant broadcasting facilities are organized to enhance the curriculum.
- QUALIFICATION OF APPLICANT** (1) person in a technical line who has practical experience in the field of audio broadcasting enough (more than three years) to undergo this training course (2) between 25 and 35 years of age (3) college graduate or equivalent in audio broadcasting (4) to continue working in the above mentioned field after returning to home countries.
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) NHK Communications Training Institute

AGRICULTURAL CO-OPERATIVES II

May 6, '96 - July 7, '96, 17 participants

農業協同組合II

J-96-00007

- PURPOSE** The purpose of this course is to provide the participants engaged in the agricultural cooperative services with the necessary information on methods and techniques for promoting agricultural cooperative movement, by introducing the Japanese experience in this field, so that they would be able to contribute to the further development of agricultural cooperative movement in their respective countries.
- MAIN FEATURES OF CURRICULUM** This course consists of lecture/discussion mainly, and more than 30% of the program is allocated to field trip. Main topics are (1) agricultural production method through farm management group, (2) cooperative activities for improvement of home life of member farm households, and (3) measures for democratic operation/administration of agricultural cooperatives, and (4) measure for formulating longterm plan for agricultural development by agricultural cooperative and as exercises.
- QUALIFICATION OF APPLICANT** (1) university or professional school graduates who are now engaged in the offices of cooperative service (2) expected to work in the co-operative movement at least for more than five (5) years after participation in the course (3) under forty five (45) years of age
- TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Institute for Development of Agricultural Cooperation in Asia (IDACA)

AGRICULTURAL EXTENSION SERVICES FOR LEADER II

May 7, '96 - July 26, '96, 15 participants

農業普及指導者II

J-96-00008

- PURPOSE** The purpose of the course is to provide participants with opportunities to understand agricultural extension services in Japan through lectures, practice, and observation tours. The course is also designed to give the participants practical suggestions on the application of agricultural guidance and to impart them with competence for leadership in agricultural guidance, through explanations of background, history, theory and practical methods of extension work.
- MAIN FEATURES OF CURRICULUM** The following major subjects will be covered in the course: (1) background and outline of extension service (2) practice of extension activities (3) cultivation and training of extension workers (4) Country Report
- QUALIFICATION OF APPLICANT** (1) administrator for agricultural extension service or subject-matter specialist (S.M.S.), engaged in training of extension workers, and have more than five years of occupational experience in this field (2) under 50 years of age (3) university graduate or equivalent
- TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) Japan Agricultural Development and Extension Association (3) Extension and Education Division, Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries

WOMEN LEADERS OF FARM HOUSEHOLD DEVELOPMENT

Aug. 13, '96 - Oct. 26, '96, 12 participants

農家生活水準向上女性指導者

J-96-00406

- PURPOSE** The purpose of the course is to provide knowledge and techniques related to the improvement of farm household lifestyles, and also to teach knowledge and techniques necessary for rural women to develop their ability to utilize regional resources, such as agricultural products, etc.
- MAIN FEATURES OF CURRICULUM** This course includes a homestay program at Japanese families in addition to common forms of training such as lectures and practices. The course mainly covers the following themes. (1) utilization of existing agricultural products and resources in the region (2) human resources development (training and guidance) for rural women (3) improvement of living standard of farm households
- QUALIFICATION OF APPLICANT** (1) engaged in the improvement of rural living standards by developing women's abilities through planning and execution of instruction and training for persons such as rural women, agricultural extension officials and/or home living improvement extension officials in agricultural departments (2) female under 45 years of age and have experience of more than five years in this field
- TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) Rural Home and Family Living Improvement Study Association (3) Agricultural Production Bureau, Ministry of Agriculture, Forestry and Fisheries
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

RICE RESEARCH TECHNIQUES

Feb. 10, '97 - Nov. 17, '97, 6 participants

稲研究

J-96-00291

- 1. PURPOSE** The course is designed to introduce useful knowledge and new techniques in the field of rice to the participants who are engaged in research or education and to enable them master research methods.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of three major categories - lecture, experiment and field practice, and study tour. Knowledge and techniques of rice cultivation and method of research work are obtained. Above all, individual experiments are regarded as the utmost importance.
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in the research work or education in the field of rice (2) university graduate or equivalent with occupational experience of more than five years in their specialities (3) between 27 and 40 years of age
- 4. TRAINING INSTITUTIONS** Tsukuba International Centre (TBIC), JICA
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for three weeks (50 hours).

VEGETABLE CROPS PRODUCTION II

Feb. 24, '97 - Sep. 19, '97, 9 participants

野菜生産II

J-96-00120

- 1. PURPOSE** The purpose of the course is to provide participants with scientific knowledge and techniques of vegetable crops cultivation through lectures, practice and observation tours. The course contains much field practice so that participants will be able to modify and apply the obtained technology in their respective conditions.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of lectures, experiments, practices and observations in study tours, on major vegetable crops in Japan. The emphasis is put on experiments and practices in the field and laboratory in this course. The main items are: (1) applicable method of intensive growing of major vegetable crops (2) fundamental knowledge on plant physiology, plant protection and soil in relation to high yielding in vegetable crops (3) fundamental matters pertaining to rationalization of vegetable marketing and circulation. In addition, individual experiments will be conducted by participants.
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in vegetable crops production, in the field of research, extension, education or administration (2) university graduate with the occupational experience of more than three years in their specialities (3) over 27 and under 37 years of age
- 4. TRAINING INSTITUTIONS** Tsukuba International Centre (TBIC), JICA
- 5. REMARKS** An intensive Japanese language course will be conducted prior to the technical training for ten days (50 hours).

VEGETABLE SEED PRODUCTION

Feb. 3, '97 - Nov. 21, '97, 9 participants

野菜採種

J-96-00292

- 1. PURPOSE** The purpose of this course is to bring up agricultural engineers on vegetable seed production having a broad viewpoint and scientific knowledge both in theory and technique, through lectures on specialized subjects, experiments and practices on major vegetables and various study tours.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of lectures, experiments, practices and observations in study tours, on major vegetable crops in Japan. The emphasis is put on experiments and practices in the field and laboratory. In addition, individual experiments will be conducted by the participants. The main themes are: (1) seed production method of major vegetable crops (2) seed technology on sorting, drying, storage and germinating of vegetable seeds (3) applicable method of varietal improvement of major vegetable crops
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in vegetable seed growing, seed technology or varietal improvement (2) university graduate with occupational experience of more than three years in their field of speciality (3) over 27 and under 37 years of age
- 4. TRAINING INSTITUTIONS** Tsukuba International Centre (TBIC), JICA
- 5. REMARKS** An intensive Japanese language course will be conducted prior to the technical training for fifteen days (50 hours).

SUGAR CANE CULTIVATION

July 25, '96 - Feb. 10, '97, 5 participants

サトウキビ栽培

J-96-00322

- 1. PURPOSE** The purpose of this course is to introduce the participants to extensive knowledge and techniques necessary for improving the productivity of sugar cane through lectures, experiments, practices and observation tours.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants and individual work in the laboratory and field. Each participant is to take one of the following subjects for their individual work. (1) sugar cane breeding (2) soil management and conservation (3) sugar cane insect pests and their control
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in research work or extension service in the field of sugar cane cultivation (2) university graduate or equivalent (3) under 35 years of age
- 4. TRAINING INSTITUTIONS** (1) Okinawa International Centre (OIC), JICA (2) Okinawa Prefectural Agricultural Experiment Station
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for eight weeks (220 hours).

PESTICIDE UTILIZATION AND SAFETY

Mar. 24, '97 - Aug. 29, '97, 7 participants

農業の利用と安全性

J-96-00237

- PURPOSE** The purpose of the course is to provide graduates who majored in plant protection (agricultural chemistry, plant pathology, entomology, weed science or environmental science and toxicology) in a university or the equivalents with fundamental and practical knowledge required for the safe use of pesticides for crops and environment protection. The course aims at upgrading their capability of selecting the most effective pesticide for a given pest, applying it at the most appropriate time and employing the most adequate application method. It also aims at assaying the pesticide residues in agricultural products and in the environment in order to evaluate the safety of pesticides.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of comprehensive knowledge on the following subjects through lecture, practice and field trip. (1) administration and laws pertaining to the use of pesticides (2) bioassay of pesticides (3) exposition of pesticides (4) pesticides in crops, foods and environment (5) application and application equipments (6) new technology
- QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) qualified in their respective fields (3) occupational experience of more than three years (4) between 26 and 40 years of age
- TRAINING INSTITUTIONS** (1) Hyogo International Centre (IHC), JICA (2) Department of Plant Protection, Faculty of Agriculture, Kobe University (3) Hyogo Prefectural Agricultural Institute (4) Kobe Quarantine Station
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

INTEGRATED PEST MANAGEMENT FOR PLANT PROTECTION

June 3, '96 - Sep. 20, '96, 7 participants

植物保護のための総合防除

J-96-00503

- PURPOSE** The course is designed to upgrade knowledge and skill of the participants in the field of plant protection, so as to train technical officials capable of playing practical roles in this fields.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of comprehensive knowledge on the following subjects through lecture, practice and field trip. (1) characteristics of host plants, pest and pathogen, environmental factors and the mutual relationships between the (2) integrated pest management (3) individual studies: laboratory of plant pathology, entomology, genetics, agrochemical science (4) group studies: transplanting
- QUALIFICATION OF APPLICANT** (1) technical official presently in charge of plant protection in government, local body or college with three years or more experience in this field, (2) university graduate (3) above 25 and under 35 years of age
- TRAINING INSTITUTIONS** (1) Hyogo International Centre (IHC), JICA (2) Department of Plant Protection, Faculty of Agriculture, Kobe University
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for about several days.

PLANT GENETIC RESOURCES

May 6, '96 - Nov. 1, '96, 6 participants

植物遺伝資源

J-96-00275

- PURPOSE** This course is designed to contribute to upgrading knowledge and skill of the junior researchers in the field of plant genetic resources, so as to train participants to be capable of playing important roles in collection and preservation of plant genetic resources in their own countries.
- MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants and individual training (5 months) in the laboratory. Each participant is to take one of the following subjects for their individual research; (1) genetic diversity of plant genetic resources based on DNA and protein analysis (2) evaluation of plant germplasm by isozyme analysis (3) evaluation of genetic resources in breeding for quality improvement (4) estimation of seed longevity in rice and other crops (5) preservation of potato and related species (6) application of molecular techniques for plant breeding (7) detection and classification of seed-borne microorganisms (8) genebank management and operations
- QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) presently engaged in research work in the field of plant genetic resources with more than three years' experience (3) over 25 and under 35 years of age
- TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) National Institute of Agrobiological Resources (NIAR)
- REMARKS** (1) A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

PLANT QUARANTINE (DISINFESTATION OF FRUIT FLIES)

May 16, '96 - Oct. 14, '96, 5 participants

植物検疫(ミバエ類殺虫技術)

J-96-00407

- PURPOSE** The course is designed to introduce the advanced technique required for disinfestation of fruit flies to the participants who are engaged in plant quarantine. It is also hoped that this course will ultimately contribute to the promotion of fruit and vegetable exports. The method of fruit fly eradication and the applicability of the method in each country will be also introduced and examined in the course.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on lectures, workshop practice and field trips. The main themes are: (1) plant quarantine in Japan (2) morphology and taxonomy of fruit flies (3) physiology and ecology of fruit flies (4) artificial rearing of fruit flies (5) disinfestation method of fruit flies (outline) (6) disinfestation test by vapor heat treatment and cold treatment (7) injury test of fruit fly by vapor heat treatment and cold treatment (8) eradication of fruit flies
- QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) having experience in plant quarantine works and having sufficient knowledge about pests such as fruit flies (3) being presently engaged in the disinfestation programme of fruit flies or will be engaged in it as a technical expert (4) being not exceeding 41 years of age
- TRAINING INSTITUTIONS** (1) Okinawa International Centre (OIC), JICA (2) Naha Plant Protection Station, Ministry of Agriculture, forestry and Fisheries (3) Fruit-fly Eradication Project Office, Okinawa Prefectural Government
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for six weeks (150 hours).

SOIL ANALYSIS AND IMPROVEMENT

June 11, '96 - Aug. 28, '96, 7 participants

土壤分析改良

J-96-00408

- 1. PURPOSE** The course is designed for specialists and technicians of soil analysis to be leaders in their fields by providing basic and practical knowledge about the technique essential to strengthening soil analysis and soil-improvement technique for maintaining higher agricultural food production, and to contribute to international relationship and the promotion of science.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of Japanese experience and basic theories of soil analysis and improvement including laboratory experiments by participants. (1) general methods of soil analysis and improvement (2) advanced technique of soil analysis using optical instruments (3) methods of soil improvement based on organic and inorganic fertilizers (4) systems of soil improvement using computers
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in soil analysis or have experience in soil improvement (soil analysis includes fertilizer, water quality or plant nutrition) (2) neither expert nor beginner in the field of soil analysis, and have at least two-years experience in this field (3) over 25 and under 45 years of age
- 4. TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Obihiro (HICO), JICA (2) Obihiro River Sewerage Treatment Plant (The City of Obihiro supports and assists the course throughout the duration along with the Obihiro University of Agriculture and Veterinary Medicine and other institutions.)

AGRICULTURAL AND RURAL DEVELOPMENT WITH ENVIRONMENTAL CONSERVATION

Sep. 3, '96 - Dec. 23, '96, 21 participants

農業・農村開発環境保全

J-96-00474

- 1. PURPOSE** The purpose of the training course is to provide improvement of planning and implementation techniques of engineers for agricultural and rural development projects mainly composed of irrigation and drainage, and agricultural land development. This training course is the general course that focuses on the introduction of agricultural and rural development under the consideration with environmental aspects.
- 2. MAIN FEATURES OF CURRICULUM** This course mainly covers the following themes. (1) environmental considerations in survey, planning, design and implementation of agricultural and rural development projects (2) conservation technology for agricultural and rural development (3) framework of agricultural and rural development projects and environmental management and policies in Japan
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in agricultural engineering (irrigation and drainage or rural development of agriculture) and have more than seven years of occupational experience in the field of the irrigation and drainage or rural development of agriculture (2) under 45 years of age (3) university graduate or equivalent
- 4. TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) Japanese Institute of Irrigation and Drainage (JIID) (3) Agricultural Structure Improvement Bureau, Ministry of Agriculture, Forestry and Fisheries

EFFECTIVE UTILIZATION OF TROPICAL AGRICULTURE AND FORESTRY RESOURCES

Apr. 11, '96 - Nov. 18, '96, 5 participants

熱帯農林資源の有効利用

J-96-00326

- 1. PURPOSE** The purpose of the course is to introduce participants to the concept, research methodologies and techniques concerning cultivation system of tropical agricultural production and effective production and utilization of biological resources in the tropics.
- 2. MAIN FEATURES OF CURRICULUM** The course consists of lectures, discussions, indoor experiment, field practices, and observation tours. Participants will be given a series of lectures on agriculture and forestry in Japan, resource plants in the tropics, agricultural statistics, crop agronomy, and other general subjects before proceeding to subcourses of their own choice and to the optional programs for more detailed study. The subcourses offered for the current fiscal year are: 1) livestock production covering animal husbandry, animal nutrition, animal environment, and other subjects pertaining to the production, care, and marketing of livestock; 2) forestry including, among other subjects, forest management and engineering, stand structure and mensuration, remote sensing, and silvicultural operation; and 3) agricultural science with emphasis on crop agronomy, soilless cultivation, protected cultivation, tissue culture, and plant virus diseases.
- 3. QUALIFICATION OF APPLICANT** (1) have more than three years' of laboratory research experience (2) presently engaged in research work (3) university graduate or equivalent (4) under 36 years of age
- 4. TRAINING INSTITUTIONS** (1) Okinawa International Centre (OIC), JICA (2) College of Agriculture, University of the Ryukyus
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for six weeks (130 hours).

DISTRIBUTION OF FRESH FRUITS AND VEGETABLES

Sep. 2, '96 - Nov. 21, '96, 7 participants

青果物流通

J-96-00484

- 1. PURPOSE** To contribute to the modernization of the fresh food distribution in participating countries where various deteriorations of products occur due to inefficiency of distribution system, participants will study the distribution from producing districts to retail market mainly focusing on the function of wholesale market that takes an important role to keep stable supply and to stabilize price of fresh fruits and vegetables.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of Japanese experience and basic theories of distribution of fresh fruits and vegetables. The main themes are: (1) lectures (a) wholesale market (b) producing district (c) retail (d) consumer (2) practical training (a) wholesale market (3) field training (a) retail market and large scale retail store (b) producing districts
- 3. QUALIFICATION OF APPLICANT** (1) administrator in charge of implementation of modernization measures for fresh food distribution or wholesale market, with practical experience of at least five years (2) under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Osaka International House Foundation (3) Osaka Municipal Central Wholesale Market
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks.

IRRIGATION AND DRAINAGE II

Feb. 10, '97 - Nov. 21, '97, 11 participants

灌溉排水II

J-96-00093

- 1. PURPOSE** The purpose of this course is to systematically introduce to engineers who are engaged in land improvement works, scientific knowledge and technology of small scale irrigation and drainage schemes.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on practices. The main practices are; (1) soil mechanics (2) hydraulics (3) concrete (4) irrigation water requirement (5) survey
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in practical works in irrigation and drainage (2) university graduate or equivalent with occupational experience of more than five years in their field (3) between 25 and 35 years of age
- 4. TRAINING INSTITUTIONS** Tsukuba International Centre (TBIC), JICA
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for three weeks (60 hours).

AGRICULTURAL LAND AND WATER RESOURCES DEVELOPMENT II

May 28, '96 - July 21, '96, 16 participants

農地水資源開発II

J-96-00159

- 1. PURPOSE** The purposes of this course are to provide senior engineers in the field of agricultural land and water resources development with the opportunity to learn about advanced technology in Japan and to increase their capability to make plans for agricultural and rural development projects (including planning, designing, and execution).
- 2. MAIN FEATURES OF CURRICULUM** This course covers the following themes. (1) concept and ideas of agricultural land and water resources development (2) engineering aspects of agricultural land and water resources development (3) agricultural and rural development projects (a) method of planning and implementation (b) design criteria and standard for irrigation and drainage facilities (4) current situation and prospect of agricultural land and water resources development in the world (5) utilization of computer technology for agricultural land and water resources development
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged either in the task of agricultural land and water resources development or irrigation and drainage and have more than ten years of occupational experience in this field (2) under 45 years of age (3) university graduate or equivalent
- 4. TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) The Japanese Institute of Irrigation and Drainage (JID) (3) Agricultural Structure Improvement Bureau, Ministry of Agriculture, Forestry and Fisheries

IRRIGATION WATER MANAGEMENT

May 6, '96 - Nov. 1, '96, 9 participants

水管理

J-96-00348

- 1. PURPOSE** The purpose of this course is to enhance participating engineers' technical skill and knowledge in designing and planning of hydraulic facilities. Participating irrigation engineers, engaged in water management works of irrigation and drainage projects, will be also introduced to efficient water management methods of main canals by hydraulic analysis using computers.
- 2. MAIN FEATURES OF CURRICULUM** This course covers the following technology. (1) design of irrigation facilities (2) irrigation and drainage (3) water management (4) hydraulic analysis and, (5) relevant technology to water management. Participants will learn and acquire the theory, application and, comprehensive knowledge and technology through lectures, practicals and experiments, observations and study tours of irrigation and drainage project sites.
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or equivalent with occupational experience of more than five years in their field (2) presently engaged in practical work in water management (3) between 25 and 35 years of age.
- 4. TRAINING INSTITUTIONS** Tsukuba International Centre (TBIC), JICA
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for 30 hours.

WATER RESOURCES DEVELOPMENT AND ITS USE IN ARID AREAS

Aug. 7, '96 - Nov. 20, '96, 9 participants

乾燥地水資源の開発と利用

J-96-00409

- 1. PURPOSE** The purpose of the course is to enable the participants who are in charge of water resources development in arid and semi-arid areas to acquire the basic knowledge and technique for the development of water resources and effective use of water in the field of agriculture, thereby contributing to the solution of the problems which arise from the shortage of water and hence food in those areas.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on report presentation, lectures which introduce Japanese experience of agricultural practice and usage of water resources in arid or sandy areas, and discussion by participants. It mainly covers: (1) national environment of arid areas (2) runoff analysis (3) river and groundwater engineering (4) facilities of water storage and water supply (5) agriculture practice of arid areas (6) irrigation, drainage and water quality (7) water management (8) water resources planning. The participants should submit reports on each subject of the curriculum during the course period.
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in either research or educational activity and have more than two years of occupational experience in this field (2) university graduate or equivalent (3) not more than 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Chugoku Branch Office, JICA (2) Tottori University
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

FARM MECHANIZATION II

Feb. 24, '97 - Nov. 14, '97, 10 participants

農業機械化II

J-96-00050

- 1. PURPOSE** The purpose of the course is to systematically introduce the scientific knowledge and techniques on farm mechanization such as effective selection, introduction and utilization of farm machinery, and systematic mechanized farming in the extension field.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on the field and laboratory experiments on farm mechanization for paddy cultivation and for upland crop cultivation. It mainly covers: (1) field performance tests of farm machinery and analysis of the result before its introduction to their countries (2) mechanization planning and its evaluation process, and applicable knowledge concerned with farm mechanization system (3) accurate and safety utilization method of measuring instruments and tools (4) experiment method such as field performance test of farm machinery under the existing conditions at the necessary level (5) technical know-how on trouble shooting and minor repair of farm use engine (6) safety operation and maintenance technique of farm machinery (7) study on personal-computer use for data analysis and report making of experiments and farm-household practice.
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) agricultural engineer and/or agronomist having more than three years experience on farm mechanization (3) between 25 and 42 years of age
- 4. TRAINING INSTITUTIONS** Tsukuba International Centre (TBIC), JICA
- 5. REMARKS** During training period, (1) the participants are to join the annual meeting of Japanese Society of Agricultural Machinery (2) farm-household practice is to be organized at a Japanese farm house.

FARM MACHINERY DESIGN

Feb. 10, '97 - Oct. 10, '97, 10 participants

農業機械設計

J-96-00276

- 1. PURPOSE** The purpose of the course is to introduce scientific knowledge and techniques on designing, trial making and performance test of farm machinery, mainly for crop production, which is adoptable to the participants' country conditions.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on the actual designing and trial making of farm machinery and performance test of trial-made machinery. The main themes are: (1) mechanism and performance of farm machinery and farm energy such as windmill and solar-dryer (2) designing methodology, trial-making process and testing methodology of trial-made farm machinery (3) accurate and safety utilization method of measuring instruments, tools and applicable utilization of personal-computer (4) analyzing and processing methodology of metallic and other materials concerned of manufacturing farm machinery (5) report making and presentation for symposium (6) study tour to university, research institutes and farm machinery manufacturing companies (7) Japanese farm house and manufacturing factory practice
- 3. QUALIFICATION OF APPLICANT** (1) university graduate from faculty of agricultural engineering or mechanical engineering (2) design engineer or research engineer with experience of more than three years in the design, research or development on farm machinery (3) between 27 and 42 years of age
- 4. TRAINING INSTITUTIONS** Tsukuba International Centre (TBIC), JICA
- 5. REMARKS** During the training period the participants are to join and to present country reports at the annual meeting of Japanese Society of Agricultural Machinery.

AGRICULTURAL MACHINERY MANAGEMENT

May 6, '96 - Nov. 14, '96, 10 participants

農業機械管理

J-96-00433

- 1. PURPOSE** This course is designed for leading agricultural engineers in the field of agricultural machinery management, as an opportunity to acquire the following knowledge and skills: (1) better understanding of agricultural machinery performance (2) selection of agricultural machinery appropriate to the operation area, soil quality and variety of crops (3) improvement of managerial ability, i. e. cost analysis, etc. (4) practical knowledge on agricultural machinery maintenance and repair (5) ability to instruct others in workshop management (Notice: the agricultural machinery in this course is especially for rice cultivation.)
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on the workshop practice and lectures at agricultural machinery companies. The main themes are: (1) principal agricultural machinery (a) fundamentals of mechanical engineering (b) principles and structure of agricultural components (c) disassembling, reassembling and maintenance (d) field operation (2) agricultural machinery management (a) farm mechanization planning, machine selection, cost analysis, mechanized farming system, working management, etc.
- 3. QUALIFICATION OF APPLICANT** (1) leading agricultural engineer with at least three years experience in the field of agricultural machinery management and/or instruction in their respective organizations (2) over 30 and under 45 years of age (3) university graduate or equivalent
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Kyoto University (3) some Japanese agricultural machinery companies
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week.

FARM MACHINERY TESTING

Mar. 17, '97 - June 20, '97, 10 participants

農業機械評価試験

J-96-00446

- 1. PURPOSE** The purpose of this course is to systematically introduce the knowledge and techniques required for the testing and evaluation of agricultural machinery.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on the actual testing and evaluating methodology of agricultural machinery. The actual testing practices are conducted under the authorized testing cord. The main themes are: (1) testing and evaluation of agricultural machines to determine the performance characteristics, rate of work, durability, safety, ease of operation (2) testing and evaluation method in laboratory and field (3) accurate utilization of testing and measuring instruments (4) data acquisition, data processing and data analyzing by micro-computer (5) agricultural machinery testing system and administration (6) agricultural mechanization features (7) study tour to university, research institutes and farm machinery manufacturing companies.
- 3. QUALIFICATION OF APPLICANT** (1) university graduate in agricultural engineering or mechanical engineering (2) test engineer or qualified engineer in testing of agricultural machinery with experience of more than three years (3) between 25 and 50 years of age
- 4. TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) Bio-oriented Technology Research Advancement Institution (BRAIN) (3) Institute of Agricultural Machinery (IAM)
- 5. REMARKS** (1) A compulsory intensive Japanese language will be conducted prior to the technical training for 10 days (50 hours). (2) During training period the participants are to join the annual meeting of Japanese Society of Agricultural Machinery.

POST-HARVEST RICE PROCESSING

Aug. 29, '96 - Nov. 19, '96, 10 participants

米の収穫後処理技術

J-96-00514

- 1. PURPOSE** The purpose of the course is to contribute to the planning, guidance and extension of technical improvement in this field in the government and public organizations of each country. It also aims to contribute to the improvement in effective processing technology and to prevent quantitative and qualitative losses by giving participants the knowledge and information on post-harvest rice processing in Japan, namely harvesting, drying, husking, grading, inspection, storage, milling, utilization of by-products, etc.
- 2. MAIN FEATURES OF CURRICULUM** The following major subjects will be covered in the course. (1) rice production and marketing (2) characteristics of rice (indica and japonica subspecies) (3) harvesting, threshing and drying - machinery operation (4) storage - facility control and management (5) milling - machinery/equipment operation (6) quality control and inspection - system and testing equipment (7) utilization of by-products (husks, bran and brokens)
- 3. QUALIFICATION OF APPLICANT** (1) senior technical administrator in government or public organizations engaged in planning and promoting the improvement of all post-harvest rice processes (not be researcher, instructor or professor at college or university) (2) under 45 years of age (3) university graduate or equivalent
- 4. TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) Japan Grain Inspection Association (3) Ministry of Agriculture, Forestry and Fisheries

POULTRY PRODUCTION AND BREEDING TECHNOLOGY

Aug. 21, '96 - Dec. 22, '96, 9 participants

鶏育種・生産技術

J-96-00061

- 1. PURPOSE** Although the course is named "Poultry Production and Breeding Technology", it should be noted that in Japan, "poultry industry" is almost a synonym of "chicken industry". Thus the course is designed to provide the participants with knowledge and technology on chicken. The purpose of the course is to transfer basic and practical knowledge and technique on chicken to the personnel engaged in the chicken industry in their own countries. It should be particularly emphasized that the course will train practical technicians engaged in directly instructing farmers, not researchers or administrators.
- 2. MAIN FEATURES OF CURRICULUM** In this Course, participants are expected to be able to acquire knowledge and technique in the following items. (1) feeding and management (2) breeding (3) other peripheral techniques of production and breeding
- 3. QUALIFICATION OF APPLICANT** (1) presently in charge of poultry raising activities, with more than two years' experience in this field (2) university graduate or equivalent with occupational experience (3) over 26 and under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Tohoku Branch, JICA (2) National Livestock Breeding Centre, Ministry of Agriculture, Forestry and Fisheries

BREEDING AND ARTIFICIAL INSEMINATION IN CATTLE

May 20, '96 - Sep. 7, '96, 8 participants

牛育種・人工授精

J-96-00494

- 1. PURPOSE** The purpose of this course is to provide participants with basic knowledge and practical techniques coupled with the latest information on cattle breeding, knowhow of A. I. (artificial insemination) and its administration system and thus to assist them in designing their own systems in their respective countries.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants and research work at laboratory and field. All participants are to take the following subjects. (1) general aspects of livestock industries (2) cattle breeding (3) artificial insemination (4) extension of artificial insemination (5) deep frozen semen (6) reproductive disorder (7) cattle management
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or equivalent with practical experiences (2) presently engaged in livestock administration, holding veterinary licenses of artificial inseminator's licenses; (3) under 40 years of age (4) will be engaged in systematic development and promotion after absorbed from this training.
- 4. TRAINING INSTITUTIONS** (1) Tohoku Branch, JICA (2) National Livestock Breeding Center, Ministry of Agriculture, Forestry and Fisheries

EMBRYO TRANSFER FOR CATTLE

Aug. 14, '96 - Dec. 1, '96, 6 participants

受精卵移植技術

J-96-00317

- 1. PURPOSE** The purpose of the course is to provide the latest ET (embryotransfer) technique in Japan for livestock breeding personnel in countries faced with such necessities, and ultimately to contribute to the progress of animal industry by the application and improvement of the techniques under their respective countries' condition. The course provides basic theory and practical use of ET as well as its administration.
- 2. MAIN FEATURES OF CURRICULUM** The course will consist mainly of lectures and practical training, in which the Centre staff and visiting professionals will give expertise and instruction on the respective subjects. This will be supplemented by observation trips to the related agencies and institutions. The subjects are as follows: (1) general aspects of livestock industry (2) cattle breeding and reproduction (3) feeding management for cattle (4) artificial insemination (5) embryo transfer
- 3. QUALIFICATION OF APPLICANT** (1) *hold veterinarian's license, or artificial inseminator's license, and have sufficient experience and knowledge about artificial insemination technique (2) university graduate or equivalent (3) staff member of institute or university that participates in the improvement of animal reproduction (4) over 25 and under 40 years of age, in principle *In this course, a non-surgical method is applied for practice drills in recovery and transplantation of embryo. This method requires applicants to have enough knowledge of, and have at least three years practical experience in AI.
- 4. TRAINING INSTITUTIONS** (1) Tohoku Branch, JICA (2) National Livestock Breeding Center, Ministry of Agriculture, Forestry and Fisheries
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for 3 weeks.

TWINNING AND INVITRO FERTILIZATION TECHNOLOGY FOR CATTLE

Jan. 8, '97 - Apr. 12, '97, 6 participants

双子生産・体外受精技術

J-96-00444

- PURPOSE** The purpose of the course is to provide the latest technique of twinning and IVF (for cattle) in Japan to technical specialists in animal reproduction from countries that need such technology and to contribute to the progress of livestock industries. The participants are expected to apply and improve upon the technique introduced in this course so as to adapt it to the situation in their respective countries.
- MAIN FEATURES OF CURRICULUM** The course will consist mainly of lectures and practical training, in which the Centre staff and visiting professionals will give expertise and instruction on the respective subjects. This will be supplemented by observation trips to the related agencies and institutions. The subjects are as follows: (1) general aspects of livestock industry in Japan (2) embryo transfer (ET) (3) twinning (4) in vitro fertilization
- QUALIFICATION OF APPLICANT** (1) *hold veterinarian's license, or artificial inseminator's license, and have sufficient experience and knowledge in the field of animal reproduction (2) university graduate or equivalent *Twinning and IVF techniques are based on ET techniques. In this course, a non-surgical method is applied for practice drills in recovery and transplantation of embryo. This method requires proficiency in artificial insemination (AI) by the Rect-vaginal method. Therefore, applicants must have enough knowledge of, and have at least three years' practical experience in AI.
- TRAINING INSTITUTIONS** (1) Tohoku Branch, JICA (2) National Livestock Breeding Center, Ministry of Agriculture, Forestry and Fisheries

DAIRY FARMING AND RELATED INDUSTRIES

Aug. 26, '96 - Nov. 19, '96, 7 participants

酪農振興・検査技術

J-96-00334

- PURPOSE** The course is designed to train dairy specialists and technicians to be leaders in their fields, by providing basic, practical knowledge about the technique essential to strengthening dairy farming such as livestock health inspection techniques, sanitary methods and inspection techniques for maintaining meat and milk quality, etc., and to contribute to international relationships and the promotion of science.
- MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants and elective specialized subjects. The followings are main items in common subjects: (1) feeding, management and reproduction in dairy cattle (2) diseases and their prevention in dairy cattle (3) improvement of sanitary conditions for housing and equipment (4) processing of meat and milk, and inspection techniques. Participants will be divided into two groups to cover one of the following subjects: (1) quality tests and sanitary inspection techniques in meat and milk products (2) animal husbandry techniques
- QUALIFICATION OF APPLICANT** (1) engaged in fields related to animal husbandry (2) university graduate or equivalent (3) over 25 and under 40 years of age
- TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Obihiro (HICO), JICA (2) Obihiro University of Agriculture and Veterinary Medicine

FOREST SOILS

Aug. 1, '96 - Dec. 1, '96, 6 participants

森林土壌

J-96-00335

- PURPOSE** The course is designed to introduce the knowledge on forest soils and the method of the forest soil survey in Japan to those who are presently engaged in practice and research work in forestry in governmental organizations.
- MAIN FEATURES OF CURRICULUM** In this course, the following are the major subjects. (1) forest soil science (a) general description of forest soils (b) formulation, classification and distribution of forest soils (c) vegetation, productivity and water conservation with forest soils (d) soils and fertilizers for forestry nursery (e) forest soils in Okinawa (2) investigation into forest soils (a) methods of forest soil investigations (sampling and analysis) (b) soil mapping and utilization on forest maps (c) field research and investigations
- QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) having more than five years of experience in the field of forest soil research (3) presently serving at forestry research organizations or universities (4) under 40 years of age
- TRAINING INSTITUTIONS** (1) Okinawa International Centre (OIC), JICA (2) Japan Forest Technical Association (3) College of Agriculture, University of the Ryukyus
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

FOREST MANAGEMENT AND PLANNING

Aug. 12, '96 - Nov. 10, '96, 15 participants

森林管理計画

J-96-00445

- PURPOSE** The purpose of this course is to provide participants with an opportunity of; (1) studying the technology, knowledge on the various land survey which form the basis of the Japanese system of forest management and planning (2) practicing forest management planning so that they may contribute to the conservation and development of forest resources in their respective countries.
- MAIN FEATURES OF CURRICULUM** This course is designed to balance lecture and practice, and the main themes are: (1) forest management in Japan (2) methods of forest management planning (3) rural development and forest policy (4) final forum
- QUALIFICATION OF APPLICANT** (1) technical staff in charge of forest management in the governmental organizations and have more than five years of experience (2) university graduate or equivalent (3) not more than 45 years of age
- TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Forest Training Institute, Forestry Agency
- REMARKS** A compulsory intensive Japanese language will be conducted prior to the technical training for two weeks (50 hours).

FOREST RESEARCH

Aug. 12, '96 - Nov. 24, '96, 5 participants

森林研究

J-96-00501

- 1. PURPOSE** The course is designated to contribute to upgrading knowledge and skill of the participants in the field of forest environment and forest biology research, so as to train researchers capable of playing important roles in this field.
- 2. MAIN FEATURES OF CURRICULUM** This course is composed of the three sub-courses; "Forest", "Forestry" and "Forest Products". Each sub-course is conducted every three years. This year (Japanese Fiscal Year 1996), the sub-course on "Forestry" will be conducted. This course consists of common subjects for all participants (about one week) and individual research work in the laboratory (about 2 months). Each participant is to take one of the following subjects for their individual research. (1) forest tree genetics/biotechnology (2) forest regeneration and tending technology (3) forestry mechanization (4) forest management
- 3. QUALIFICATION OF APPLICANT** (1) university / college graduate or equivalent with occupational experience of more than five years in the field of forest research (2) research scientist of forest research organizations or universities (3) under 40 years of age. Note: This training course is not designed for administrators, but for research scientists.
- 4. TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) Forestry and Forest Products Research Institute, Ministry of Agriculture, Forestry and Fisheries
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

WOOD BASED MATERIALS APPLICATION TECHNOLOGY

Aug. 12, '96 - Dec. 5, '96, 7 participants

木質材料高度利用技術

J-96-00386

- 1. PURPOSE** The course is designed to contribute to upgrading knowledge of the participants in the field of wood industry through lectures and observations, so as to enable them to contribute to the development of wood technology and effective utilization of wood resources in their own countries.
- 2. MAIN FEATURES OF CURRICULUM** In the course, the emphasis is put on lectures and practical training. The main themes are: (1) wood resources and their utilization (2) production technology of improved woods (3) wood based materials and surface finishing technology (4) wood based materials and adhesive agents (5) research and development for wood based materials processing
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) occupational experience of more than five years in the field of wood industry, belonging to a governmental organization (3) under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) universities and public institutes
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

SEMINAR ON FISHERIES DEVELOPMENT PLANNING

Oct. 15, '96 - Dec. 8, '96, 7 participants

水産開発セミナー

J-96-00518

- 1. PURPOSE** The seminar is designed to upgrade the planning capabilities of participants who are involved in fisheries development planning.
- 2. MAIN FEATURES OF CURRICULUM** The seminar consists of general and special subjects. The program of general subjects is designed to cover critical aspects of fisheries development planning in developed and developing countries to ensure that participants are exposed to a wide spectrum of experiences and development strategies. The principal topics of general subjects are: (1) fisheries development and supporting systems in Japan (2) fisheries development strategies and project formulation (3) fish resource management-biology and economics (4) infrastructure development for fisheries (5) financial development for fisheries (6) poverty, women and participation in fishing communities (7) coastal zone management and fisheries development. The main topic of special subjects will be set each year. In Japanese Fiscal Year 1996, it is "Coastal Community Development".
- 3. QUALIFICATION OF APPLICANT** (1) director or government official at an equivalent level who is presently in charge of development planning in the fisheries sector and with more than five years' occupational experience (2) university graduate or equivalent (3) between 30 and 40 years of age
- 4. TRAINING INSTITUTIONS** Kanagawa International Fisheries Training Centre (KIIFTC), JICA

FISHERIES MANAGEMENT AND COOPERATIVES (INTENSIVE)

June 25, '96 - Oct. 20, '96, 8 participants

漁業協同組合(インテンシブ)

J-96-00520

- 1. PURPOSE** This course is designed to upgrade the administrative skills of personnel working in the following positions: government officers who are in charge of organizing fishermen's cooperatives and their staff.
- 2. MAIN FEATURES OF CURRICULUM** The curriculum is composed of lectures on: (1) Fishermen's cooperatives, introduction of Japanese experiences (2) proper utilization of fish resources through fishermen's organizations (3) upgrading the living standard of coastal fishermen by fishermen's cooperatives, and (4) related subjects including fish trade and marketing, aquaculture development and post harvest technology. In addition, discussion meetings on these subjects and field trips are included in the program.
- 3. QUALIFICATION OF APPLICANT** (1) staff of fishermen's cooperative or an official of the government in related fields with more than three years' occupational experience (2) university graduate or equivalent (3) under 40 years of age
- 4. TRAINING INSTITUTIONS** Kanagawa International Fisheries Training Centre (KIIFTC), JICA
- 5. REMARKS** A two week compulsory intensive Japanese language course (total 50 hours) will be conducted prior to practical training.

FISHING GEAR DEVELOPMENT AND DESIGN

Sep. 3, '96 - Dec. 8, '96, 7 participants

漁具開発設計

J-96-00215

- 1. PURPOSE** The purpose of the course is to provide basic knowledge on methods on research and development for the improvement of existing fishing gear or introduction of new ones taking resource management into consideration.
- 2. MAIN FEATURES OF CURRICULUM** This course will be delivered through a series of lectures, case studies and practical training. The key subjects are: (1) basic theory of fishing gear design and improvement (2) case studies of fishing gear development and improvement in Japan (3) evaluation of newly introduced fishing methods (4) model net making, construction and practical operation (small scale setnet and gill net).
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) more than three years' occupational experience in fishing gear and methods research and development (3) less than 40 years of age
- 4. TRAINING INSTITUTIONS** Kanagawa International Fisheries Training Centre (KIIFTC), JICA
- 5. REMARKS** A compulsory intensive Japanese language course (total 40 hours) will be conducted after lecture in the evening.

COASTAL FISHING TRAINING AND EXTENSION

Apr. 2, '96 - Sep. 1, '96, 7 participants

沿岸漁業訓練普及

J-96-00432

- 1. PURPOSE** The course is designed for instructors and extension workers to upgrade their practical knowledge and techniques on various coastal fishing methods and extension of such methods.
- 2. MAIN FEATURES OF CURRICULUM** The course will be delivered through a series of lectures and practical training on board. The key subjects are: (1) coastal fisheries in Japan (2) construction and operation of various fishing gear (theory and practice) (3) proper management of fishing grounds and fishery resources (4) proper use of fishing machines and auxiliary equipment (5) fisheries extension service and its examples.
- 3. QUALIFICATION OF APPLICANT** (1) senior high school graduate or equivalent (2) more than three years' occupational experience in coastal fisheries (3) less than 40 years of age
- 4. TRAINING INSTITUTIONS** Kanagawa International Fisheries Training Center (KIIFTC), JICA
- 5. REMARKS** A compulsory intensive Japanese language course (total 12 hours) will be conducted after lectures in the evening.

GENERAL AQUACULTURE

Jan. 14, '97 - June 29, '97, 9 participants

養殖一般

J-96-00236

- 1. PURPOSE** The course is designed to upgrade basic knowledge and technique of aquaculture for those who are involved in extension or research work. The training program is designed to cover various kinds of aquatic organisms, such as fin fish, molluscs, crustaceans and algae in not only seawater, but also in brackishwater and freshwater.
- 2. MAIN FEATURES OF CURRICULUM** This course is designed to emphasize introduction of Japanese technical expertise and basic scientific theories of aquaculture and will be delivered through lectures, laboratory experiments and study tours. The main subjects are: (1) seed production (2) breed stock management (3) food development (4) pathology. Additionally, upon request by participants, one month is allocated for individual experiments on the following aquatic animals; *Paralichthys olivaceus*, *Pogrus major*, *Cyprinus carpio* and *Penaeus japonicus*.
- 3. QUALIFICATION OF APPLICANT** (1) person presently engaged in aquacultural extension or research work with more than two years' experience in this field (2) university graduate or equivalent (3) under 35 years of age
- 4. TRAINING INSTITUTIONS** Kanagawa International Fisheries Training Centre (KIIFTC), JICA
- 5. REMARKS** A two week compulsory intensive Japanese language course (total 50 hours) will be conducted prior to the technical training.

MARINE RANCH (MARINE FARM) SYSTEM

July 8, '96 - Dec. 7, '96, 7 participants

海洋牧場システム

J-96-00336

- 1. PURPOSE** The purpose of the course is to enable the participants who belong to fisheries research institutes (university) and fisheries offices to understand the basic theory and techniques for the management of marine ranch (marine farm). After this course, it is expected of them to plan a suitable system for the fishery resources in their respective countries.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on understanding the idea of the marine ranch (marine farm) system, not on learning a certain specialized field or a technique in fisheries. It mainly covers: (1) theory of marine ranch (marine farm) management (2) method of fisheries hydrography (3) method of preparing seaweed beds (4) method of seed production of shrimp, shellfish and marine fish (5) method of artificial reefs (6) making his/her own marine ranch (marine farm) programme for his/her country
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or equivalent and be experienced in business over five years (2) presently engaged in either research or educational activity in fisheries (3) not more than 40 years old
- 4. TRAINING INSTITUTIONS** (1) Shikoku Branch Office, JICA (2) Usa Marine Biological Institute, Kochi University
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted for two weeks in the early days of the course.

CONTROL OF FISH DISEASE AND ENVIRONMENT IN AQUACULTURE

Oct. 7, '96 - Dec. 22, '96, 5 participants

魚類防疫・環境管理

J-96-00351

- PURPOSE** This course is designed for those who belong to institutions of education and research, to understand the importance of environment control and practical techniques for preventing epizootics, an important theme in aquaculture. Contribution to the improvement of aquaculture industries in participating countries is the purpose of the course.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is placed on the ecology of aquaculture, and the practical techniques for preventing epizootics in fish. The curriculum is composed of lecture and technical training. The subjects covered in the course are: (1) coastal environmental chemistry; (2) environmental microbiology; (3) planktonology; (4) fish pathology; (5) prevention of epizootics in fish.
- QUALIFICATION OF APPLICANT** (1) presently engaged in either in research or educational activities in aquaculture, with more than three years of occupational experience; (2) university graduate or equivalent; (3) less than 40 years of age.
- TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) National Fisheries University, Ministry of Agriculture, Fisheries and Forestry
- REMARKS** (1) A compulsory 25 hour Japanese language course will be conducted prior to the technical training.

HULL AND ENGINE MAINTENANCE OF SMALL FISHING BOAT

June 25, '96 - Dec. 8, '96, 7 participants

小型漁船の船体・機関保守

J-96-00277

- PURPOSE** The purpose of the course is to provide a series of practical training in maintenance and repair for hull and engine of fishing boat less than 50 G.T.. The course is designed for persons providing fishermen with training and technical service for maintenance and repair of hull and engine.
- MAIN FEATURES OF CURRICULUM** This course focuses on knowledge and techniques of maintenance and repair of small fishing boats, engines and other fishing equipment with emphasis on practical training. The key subjects are: (1) diesel engines (2) outboard motors (3) refrigeration equipment (4) electrical equipment for marine use (5) F.R.P. for fishing boat hull.
- QUALIFICATION OF APPLICANT** (1) senior high school graduate or equivalent (2) more than three years' occupational experience in providing fishermen with training and technical service for maintenance and repair of hull and engine of fishing boats (3) between 25 and 40 years of age.
- TRAINING INSTITUTIONS** Kanagawa International Fisheries Training Centre (KIIFC), JICA
- REMARKS** A two week compulsory intensive Japanese language course (total 50 hours) will be conducted prior to practical training.

HANDLING AND PROCESSING OF FISH AND MARINE PRODUCTS

Apr. 2, '96 - Aug. 4, '96, 6 participants

漁獲物処理

J-96-00515

- PURPOSE** The purpose of the course is to provide practical knowledge required by the leading technical officials and researchers who are presently engaged in the technology development of fish handling and processing. The course is comprised of lectures, laboratory practices, as well as demonstrations arranged by universities, governmental research institutes and private enterprises.
- MAIN FEATURES OF CURRICULUM** This course will be delivered through a series of lectures, practical training and field trips. Participants will acquire knowledge and techniques on handling and processing of fish and marine products. The main lectures are: (1) various processing methods of fish and marine products (2) handling for freshness maintenance (3) improvement of processed products (4) basic quality control. Practical training includes drying, smoking, salting and seasoning products; micro-organism testing, food analyzing methods, material freshness and product quality, and methods of judging freshness.
- QUALIFICATION OF APPLICANT** (1) engineer currently engaged in either production or research on handling and processing of fish and marine products and having more than three years' occupational experience in this field (2) university graduate or equivalent (3) between 25 and 40 years of age
- TRAINING INSTITUTIONS** Kanagawa International Fisheries Training Centre (KIIFC), JICA
- REMARKS** A two week compulsory intensive Japanese language course (total 50 hours) will be conducted prior to the technical training.

QUALITY ASSURANCE OF MARINE FOOD

Aug. 13, '96 - Dec. 8, '96, 6 participants

水産食品品質保証

J-96-00517

- PURPOSE** The purpose of the course is to provide practical knowledge and techniques on quality management and inspection of marine food, so that the participants may contribute to the improvement of safety and healthness of fishery products processed in their countries.
- MAIN FEATURES OF CURRICULUM** This course will be delivered through a series of lectures, practical training in processing factories and inspection laboratories. Participants will acquire knowledge and techniques on inspecting safety of products and sanitary condition of processing facilities. The main subjects are: (1) introduction of various inspection methods of marine products (2) introduction of inspection methods of sanitary management, including HACCP (3) introduction of laws and ordinances of quality control of marine food in Japan. Practical training includes freshness testing of fish and quality assurance of canned fish.
- QUALIFICATION OF APPLICANT** (1) engineer currently engaged in inspection of fish processing and marine products and having more than three years' occupational experience in this field (2) university graduate or equivalent (3) between 25 and 40 years of age
- TRAINING INSTITUTIONS** Kanagawa International Fisheries Training Centre (KIIFC), JICA
- REMARKS** (1) A two week compulsory intensive Japanese language course (total 50 hours) will be conducted prior to technical training.

COAL MINE SAFETY

Sep. 9, '96 - Dec. 8, '96, 9 participants

石炭鉱山保安

J-96-00269

- PURPOSE** The course is designated to introduce practical technology and knowledge in the field of coal mine safety to participants, who are safety engineers at coal mines, mine safety officers or official field inspectors so that they can play important roles in their fields.
- MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants (about two and a half months) and individual study in the laboratory (about one week). The main subjects are as follows: (1) common subjects (lecture): (a) mining policy (b) mine safety policy (c) international cooperation of mine safety (d) inspection of underground appliances (e) prevention of underground labor accidents (f) accident analysis (g) underground work environment (h) ventilation (i) explosives and blasting (j) rock mechanics (k) mine support (l) gas and coal dust explosions (m) static electricity (n) safety appliances (o) safety measurement (p) mine fire (2) subjects for individual study (one subject for each participant): (a) rock mechanics, AE measurement (b) mine ventilation (c) safety appliances (d) explosion proof instruments
- QUALIFICATION OF APPLICANT** (1) presently engaged in the field of coal mine safety (2) university graduate or equivalent with basic knowledge of mine safety with occupational experience of more than three years (3) under 35 years of age
- TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) National Institute for Resources and Environment AIST, Ministry of International Trade and Industry (3) Japan Technical Co-operation Center for Coal Resources Development

RESEARCH AND DEVELOPMENT ON MATERIALS AND RESOURCES

Sep. 25, '96 - May 29, '97, 5 participants

材料および資源に関する技術研究

J-96-00412

- PURPOSE** The purpose of the course is to assist the participants in understanding the essential aspects of research and in cultivating a pioneer spirit of research through participation in the research themes with Government Industrial Research Institute (GIRIT) and discussion with GIRIT's researchers. GIRIT's researchers will help participants become technical experts and research planners who can carry out similar work by themselves so as to promote this field in their own countries. The purpose of this course is not to acquaint the participants with known technologies that can be immediately applied in their countries, but rather to assist the participants in mastering methods of research and planning with the objective of gaining greater technical knowledge.
- MAIN FEATURES OF CURRICULUM** After the technical orientation, participants will pursue individual research work under a designated research subject for about eight months. The following six groups in GIRIT will offer programs for the technical training: (1) separation and chemical analysis group (2) electrochemical corrosion-testing group (3) mechanical property group (4) thermal science-design and analysis group (5) computer aided instrumentation group (6) ultrasonic measurement of materials group
- QUALIFICATION OF APPLICANT** (1) university graduate in the field of chemical, mining, mechanical or other related technology with occupational experience of more than three years. Master's or doctoral degree is preferable. (2) between 25 and 35 years of age
- TRAINING INSTITUTIONS** (1) Tohoku Branch, JICA (2) Government Industrial Research Institute, Tohoku, (GIRIT), Agency of Industrial Science and Technology, Ministry of International Trade and Industry.

MINING AND METALLURGY

July 22, '96 - Nov. 18, '96, 20 participants

資源開発

J-96-00441

- PURPOSE** The purpose of the course is to enable the participants: (1) to deepen understanding of the present situation in the Japanese mining industry and the relationship between the mining industry and other industries through lectures and field trips, and (2) to enhance the knowledge and technology necessary for their mining business after going back to their respective countries. Coal mining industry will not be covered in this course.
- MAIN FEATURES OF CURRICULUM** This course consists of lectures and observation tour. Participants will be divided into three groups to cover one of the following subjects: (1) Exploration (2) mining (3) mineral processing and metallurgy
- QUALIFICATION OF APPLICANT** (1) university / college graduate or equivalent who has basic knowledge of mineral mining (2) mining geologist, mining engineer, milling engineer, metallurgist and other engineer concerned with mining industry who are presently employed at government institutions or private companies in the field of mining development (3) have more than five years of practical experience (4) under 40 years of age
- TRAINING INSTITUTIONS** (1) Tohoku Branch, JICA (2) International Institute for Mining Technology (Minetec)
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for 3 weeks.

SENIOR CLASS SEMINAR ON SMALL INDUSTRY DEVELOPMENT II

July 4, '96 - Aug. 3, '96, 12 participants

中小工業開発セミナーII

J-96-00074

- PURPOSE** The purpose of the seminar is to provide senior class officials in governmental or semi-governmental agencies with some hints and ideas for formulating and implementing better development policies for small industry through review and comparison of policies taken in Japan and those of participating countries. Participation in the seminar will be of great value to participants in development and promotion of small industry in their countries.
- MAIN FEATURES OF CURRICULUM** This seminar will be conducted in the form of lecture, observation and discussion and the curriculum consists of four main parts as follows: (1) orientation (lecture and observation) (a) general environment for small industries (2) Japanese case study (lecture and observation) (a) financing (b) tax and credit (c) management (d) technology (e) human resources (3) international comparative study (presentation and discussion) (a) ancillarization (b) rural industrialization (c) export-oriented industrialization (d) institutional set-ups (industrial estate, cooperative) (4) applicability study (presentation and discussion) (a) Subjects are decided according to the needs of the participants
- QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) senior administrative official in charge of implementation and/or planning of small industry development (3) occupation experience of more than five years (4) more than 30 years of age
- TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Aichi Industrial Research Association (3) Special Steering Committee for S. I. D. Seminar

IMPLEMENTATION OF TQC AND STANDARDIZATION ACTIVITIES II

June 20, '96 - Sep. 1, '96, 13 participants

TQC・標準化活動実践II

J-96-00105

- PURPOSE** The purpose of this course is for managers and engineers (who are involved in promoting quality control and performing the related actual work in standardization organizations, quality control organizations or enterprises) to acquire knowledge about the necessity for TQC and Standardization, as well as the related philosophy and techniques, as the foundations for the development of manufacturing industries. Upon return to their respective countries, it is expected that the participants will effectively apply this knowledge in actual operations, as well as provide an active basis for TQC and Standardization to flourish, as supporters and advisors in these fields.
- MAIN FEATURES OF CURRICULUM** The main themes of this course are: (1) the concepts of overall theory, quality theory, control theory regarding the basics of and need for TQC and Standardization (2) the techniques for solving quality problems and the methods of managing a TQC organization in actual use. (3) team study to understand how to solve problems through the TQC approach.
- QUALIFICATION OF APPLICANT** (1) working for promotion of standardization and/or quality control with experience of more than three years in government office, public corporation, public or private institute, or private company. (2) under 40 years of age (3) university/college graduate or equivalent
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Standards Department, Agency of Industrial Science and Technology, Ministry of International Trade and Industry (3) Japanese Standards Association (JSA)
- REMARKS** This course mainly covers manufacturing fields such as the mechanical, electrical and electronic, textile, and chemical industries. It does not cover such fields as the agricultural, forestry, foods, pharmaceutical, and service industries, etc.

EXAMINATION PRACTICE ON INDUSTRIAL PROPERTY

Sep. 5, '96 - Nov. 7, '96, 10 participants

工業所有権審査実務

J-96-00242

- PURPOSE** The purpose of this course is to offer an opportunity to the participants to obtain basic practical knowledge and techniques needed for smooth operation of the industrial property system, especially concerning the role of this system in technological development and transfer of technology. Participants will also be provided with a basic knowledge of the Japanese legal system of the industrial property rights, and organizations responsible for implementation of the industrial property system and patent documentation. Participants will then be able to contribute to the further development of the industrial property system in their respective countries.
- MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants and group work. After common lectures, participants will be divided into several groups in accordance with their field of specialty.
- QUALIFICATION OF APPLICANT** (1) official who has experience as an examiner for patent, design or trademark applications or its equivalent. (2) more than 2 years occupational experience as above mentioned (1) (3) under 40 years of age (4) university graduate or equivalent
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japanese Patent Office (JPO), Ministry of International Trade and Industry (3) Japan Institute of Invention and Innovation (JII)
- REMARKS** Formerly named "Industrial Property System", this course focuses on examination practice of industrial property.

SEMINAR ON INDUSTRIAL STANDARDIZATION AND QUALITY CONTROL

Oct. 22, '96 - Nov. 16, '96, 9 participants

工業標準化・品質管理シニアセミナー

J-96-00316

- PURPOSE** This seminar is designed to give informative knowledge and ideas on actual implementation of standardization and quality control activities to participants; (1) by showing the experiences and the current situation of Japanese activities, and (2) by having discussion with Japanese leaders and policy makers of such activities.
- MAIN FEATURES OF CURRICULUM** The main themes of this course are: (1) role of standardization in industrial development (2) how to promote nation-wide standardization (3) the current situation and the future direction of international standardization activities (4) what QC is and how to promote it in companies
- QUALIFICATION OF APPLICANT** (1) working for promotion of industrial standardization and/or quality control either in government office, public corporation, public or private institute, or private company (2) senior-class staff (director of department or its equivalent) presently engaged in policy-making of industrial standardization and/or quality control (3) university graduate or equivalent (4) between 35 and 50 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Standards Department, Agency of Industrial Science and Technology, Ministry of International Trade and Industry (3) Japanese Standards Association (JSA)

ADMINISTRATION OF INDUSTRIAL PROPERTY

June 4, '96 - June 29, '96, 15 participants

工業所有権行政実務

J-96-00261

- PURPOSE** The purpose of this training course is to offer the participants with an opportunity to reconfirm the importance of industrial property (IP) System for the economic and technological development through studying the Japanese experiences, and discuss some ideas for further development of management of IP system in their respective countries.
- MAIN FEATURES OF CURRICULUM** The main themes of this course are: (1) Japanese IP system and its management and administration (2) role of IP system for economic and technology development in Japan (3) further development of management of IP system in participating countries
- QUALIFICATION OF APPLICANT** (1) officials of a competent government ministry or agency (industrial property office or its supervisory ministry) whose duties concern industrial property policy-making (2) university graduate or the equivalent (3) between 25 and 50 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japanese Patent Office (JPO), Ministry of International Trade and Industry (3) Japan Institute of Invention and Innovation (JII)
- REMARKS** This course was formerly named "Seminar on Industrial Property" (1980-1995).

LEGAL METROLOGY

July 15, '96 - Dec. 15, '96, 6 participants

法定計量

J-96-00513

- PURPOSE** This course is organized for government officers who are designated as senior verification officers and are responsible in verification and inspection of measuring equipments in the field of legal metrology. The purpose is to provide practical training of verification and inspection. It will serve as a good opportunity to upgrade the level of the legal metrology technology and to understand the state of the art legal metrology system and the operational method available in Japan.
- MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants as follows. (1) technical training (16 weeks) (a) legal metrology in general (b) measuring instrument industry in Japan (ii) outline of measurement administration in regional districts (iii) regional administration and inspection station (iv) international measurement term and system of units (v) measurement administration system (vi) legal metrology of Japan and abroad (b) technical subjects (i) mass standards, temperature standard, length standard (ii) statistic theory (quality control), automatic control theory (iii) regulation of legal metrology, electronic type measuring instruments (iv) metric convention (v) present situation of exporting goods (vi) international society and roles of measurement, thermophysical measurement, etc. (vii) length measuring meter and inspection, glass thermometer and inspection, taxi meter driving inspection, etc. (viii) inspection of verification standards (ix) verification of weighing instrument, water meter, gas meter, watt-hour meter (x) periodic inspection, on-the-spot inspection (c) specialized institutes (i) Japan electric meters inspection corporation (JEMIC) (ii) Japan Quality Assurance Organization (JQA) (2) observation tour (1 week) (3) factory observation training (1 week)
- QUALIFICATION OF APPLICANT** (1) university graduate or equivalent. (2) presently engaged in legal metrology at governmental or semi-governmental services with an occupational experience of more than three (3) years in this field. Researchers are excluded. (3) Over 25 and under 40 years of age.
- TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) National Research Laboratory of Metrology (NRLM), Agency of Industrial Science and Technology, Ministry of International Trade and Industry (3) Japanese Conference on Administrative Guidance of Legal Metrology (JCAGLM), Secretariat: Tokyo Metropolitan Inspection Institute of Weights and Measures (TMIHWM)
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for three weeks (75 hours).

CERAMIC KILN AND FIRING TECHNOLOGY

Sep. 17, '96 - Feb. 28, '97, 8 participants

セラミック窯炉及び焼成技術

J-96-00505

- PURPOSE** The course is aimed at providing researchers presently engaged in development work in research institute on educational institutions, or engineers in the private, medium and small enterprises with knowledge and technology about kiln design, kiln construction, and firing etc. concerning ceramic products which conform to the actual conditions of participating countries. It is expected that, upon completion of the course, the participant will be able to contribute to the improvement of quality of local ceramic products as well as firing technology in manufacturing local ceramic products.
- MAIN FEATURES OF CURRICULUM** In the course, the emphasis is put on lectures, practical training and observations. The main theme are: (1) introduction of technical training (2) kiln design and kiln construction (3) technology on firing in the kiln (4) related technology
- QUALIFICATION OF APPLICANT** (1) university graduate or equivalent with the practical experience of more than three years in production at educational or research institutions related to ceramics (2) presently engaged in the field of ceramics (3) between 25 and 39 years of age
- TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Technical Research Laboratory, Mino Yagyo Co., Ltd.
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for three weeks (75 hours).

CONFORMITY ASSESSMENT SYSTEMS FOR INDUSTRY

Jan. 16, '97 - Mar. 14, '97, 10 participants

認証検査制度

J-96-00235

- PURPOSE** The purpose of this training course is to introduce to participants working in certification bodies, testing laboratories or inspection agencies, the certification system in Japan which has contributed greatly to quality assurance in the industrial field in Japan, as well as encouraging participants' interest in quality.
- MAIN FEATURES OF CURRICULUM** The main themes of this course are; (1) philosophy of the certification system (2) Japanese certification systems, particularly the JIS (Japanese Industrial Standards) Marking System (3) voluntary and compulsory certification systems (4) international movements related to certification systems (5) assessment procedures for assuring conformity with concerned standards (6) practical inspection procedures (7) promotion of quality products in each participating country
- QUALIFICATION OF APPLICANT** (1) presently engaged in the work relating to certification, inspection and/or testing in the industrial field (2) under 40 years of age (3) university/college graduate or equivalent
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Standards Department, Agency of Industrial Science and Technology, Ministry of International Trade and Industry (3) Japanese Standards Association (JSA)
- REMARKS** This course mainly covers manufacturing fields such as the mechanical, electrical and electronic, and textile industries. It does not cover such fields as the agricultural, forestry, food, pharmaceutical, and service industries, etc.

HIGH TECHNOLOGY MATERIALS APPLICATION (Fine Ceramics, Composites, Metals)

May 13, '96 - Aug. 5, '96, 7 participants

ファインセラミックス応用技術

J-96-00387

- PURPOSE** The course is aimed at providing engineers who are at present engaged in the field of mechanical and metal industries with applied technology, knowledge and information on fine ceramics and other high technology materials, whose demand has been incessantly growing in recent years, so as to expedite the development in their respective countries.
- MAIN FEATURES OF CURRICULUM** This course mainly covers: (1) inorganic materials (ceramics) mechanical properties, chemical durability, thermal properties, application at higher temperatures, electronic radiation, magnetic properties, application as sensor, optical properties, biological application, establishment and utilization of data base (2) other materials metallic materials composite materials
- QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) experts presently engaged in the field of engineering (3) between 30 and 40 years of age
- TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Japan Fine Ceramics Center (JFCC) (3) Government Industrial Research Institute, Nagoya (GIRIN) (4) public institutes and private industries
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (30 hours).

POLYMER AND CHEMICAL TECHNOLOGY

May 13, '96 - Mar. 9, '97, 7 participants

物質工学研究

J-96-00268

- 1. PURPOSE** The course is designed for researchers of national research institutes and educational institutions in participating countries, and gives the opportunity to learn research methods and gain related knowledge through research on specialized themes selected by the participants themselves. Field trips scheduled in the programme are to further improve their knowledge in the practical field.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants (1 week) and individual training in the laboratory. Each participant is to take one of the following subjects for their individual research. (1) investigations for design and construction of an artificial RNA enzyme (2) preparation and evaluation of blended polymer membrane for ion selective separation (3) synthesis and characterization of photofunctional materials (4) environmental analysis of organic materials (5) pressure effect on the reaction of lipids (6) surface modification of polymeric materials using glow discharge plasma and ultraviolet (7) structures and physical properties of polymer blends (8) characterization of superstructure of high-performance polymers (9) photoelectric and luminescent functions and characterization of organic and polymeric materials (10) synthesis of specialized surfactants and their application (11) fabrication of fiber reinforced thermoplastic composites and their physical properties (12) development of reactive compatibilizers for immiscible high performance polymer blends (13) advanced utilization technology of supercritical fluid to chemical reaction processes (14) elimination and degradation of toxic substances in wastewater and polluted air (15) advanced technique for treatment of waste water containing organic materials (16) structure and properties of oriented semi-crystalline polymers
- 3. QUALIFICATION OF APPLICANT** (1) researcher with a bachelor's degree, capable of carrying out basic research in the field of polymer and chemical technology (2) presently engaged in research work in the field of polymer and chemical technology, and have occupational experience of more than three years in the said field. Administrative officers are not qualified for this course (3) over 25 and under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) National Institute of Materials and Chemical Research (NIMC)
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

CATALYTIC SCIENCE

Aug. 26, '96 - Feb. 19, '97, 6 participants

触媒科学研究

J-96-00337

- 1. PURPOSE** The purpose of the course is to enable participants to understand both basic and practical aspects of catalysis on four main themes such as heterogeneous catalysis, homogeneous catalysis, surface science and electrocatalysis. It is aimed to help and encourage the participants through laboratory courses in one of these themes to engage themselves in catalytic research field in future.
- 2. MAIN FEATURES OF CURRICULUM** This course mainly consists of individual research work at laboratory. Each participant is to take one of following subjects for their individual research. (1) surface science (surface structure and properties): design and construction of sophisticated equipment such as low-energy electron diffraction and high-energy electron diffraction (2) surface chemistry (surface molecular dynamics): surface molecular dynamics sensitive to reaction sites and dynamics of new reaction paths induced by ultraviolet laser radiation (3) heterogeneous catalysis-A (advanced catalyst design): catalysis for environmental chemistry and saving natural resources and energy (eg. utilizing and replacing freon gas) (4) electrocatalysis (interfacial energy conversion): characterization and design of solid-liquid interfaces at the atomic and molecular levels (5) heterogeneous catalysis-B (metal complex catalysis): catalysis for removing the harmful gas (nitrogen monoxide) from cars and thermal power plants etc. which causes air pollution and acid rain (6) homogeneous catalysis (catalysis in fine organic synthesis): organic synthesis using organometallic compounds.
- 3. QUALIFICATION OF APPLICANT** (1) engaged in surface chemistry, organic chemistry, synthetic chemistry, applied chemistry, industrial chemistry, materials chemistry, catalytic science, electrochemistry or related fields (2) have a master's degree or be equivalent with scientific experience of more than two years after graduation from university (3) over 25 and under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Sapporo (HICS), JICA (2) Catalysis Research Center, Hokkaido University

BIOINDUSTRIES

May 7, '96 - Aug. 2, '96, 8 participants

バイオインダストリー

J-96-00357

- 1. PURPOSE** The course aims at providing experts who are at present engaged in research/educational institutions or industries with recent and practical knowledge on bioindustry.
- 2. MAIN FEATURES OF CURRICULUM** This course mainly covers: (1) outline of bioindustry (material production, fermentation industry) (2) fundamental biotechnology (plant cell engineering, recombinant DNA technology, cell fusion, equipments and systems, human and animal cell engineering, biopharmaceuticals, industrial enzymes, marine biotechnology, food industries) (3) application of new technology (bioremediation, biosensing, material and methods for molecular biology research, protein engineering, primates) (4) future perspective of biotechnology (new development of policy for biochemical industry, safety of biotechnology-applied products)
- 3. QUALIFICATION OF APPLICANT** (1) expert presently engaged in biotechnology and related technology at industry, research/educational institutes with more than five years of experience (2) university graduate or equivalent (3) between 28 to 45 years of age
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Japan Bioindustry Association (JBA) (3) public institutes, universities, industries
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

ORGANIC FINE-CHEMICALS TECHNOLOGY

Aug. 12, '96 - Dec. 8, '96, 6 participants

有機ファインケミカルズ工学

J-96-00381

- 1. PURPOSE** The participants of this course, who are researchers and engineers engaged in research on the synthesis of organic fine-chemicals and the development of their applications and uses, will be introduced to techniques of synthesis, analysis and control of environmental pollution through lectures, practices and observations. It is hoped that they will contribute to the development of knowledge and technologies in the relevant field in their countries.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on laboratory experiments. The main themes are: (1) industrial organic chemistry (lecture) (2) instrumental analysis (lecture, practice) (GC, LC, MASS, NMR, IR, UV, EA, light scattering, zeta potential, ion chromat, capillary GC, DSC) (3) organic synthetic chemistry (lecture, practice) (4) organic chemistry and organic structure (5) synthesis of color-material (e. g., dye-stuff), and application techniques (lecture, practice) (6) textile processing and dyeing techniques (lecture) (7) synthetic methods of intermediate products of pharmaceutical drugs and pesticides (lecture, practice) (8) detergent-cleaning techniques (lecture, practice) (9) adsorption materials techniques (lecture, practice) (10) environmental pollution control techniques (lecture, practice) (11) factory observation
- 3. QUALIFICATION OF APPLICANT** (1) holding master's degree in organic chemistry, or organic industrial chemistry (especially, synthesis and application of color-stuff chemistry, dyes, detergents or organic chemicals' intermediates), (2) between 25 and 40 years of age (3) more than three years of experience of manufacture, application or research in organic chemical technology
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Osaka Municipal Technical Research Institute (OMTRI)
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week.

POLYMER MATERIALS AND TECHNOLOGY

May 6, '96 - Aug. 23, '96, 6 participants

高分子材料工学

J-96-00394

- 1. PURPOSE** The course aims to introduce to the participants knowledge and techniques concerning manufacture and quality control of polymer materials, and to foster competent specialists who are able to test and evaluate polymer materials, based on broad and profound knowledge and experience in their specialized field.
- 2. MAIN FEATURES OF CURRICULUM** In this course the emphasis is put on laboratory experiments. The main themes are: (1) properties of polymer materials and their manufacture (2) evaluation and testing techniques of polymer materials (3) molding techniques (4) application techniques of functional polymer materials
- 3. QUALIFICATION OF APPLICANT** (1) university / college graduate in chemistry or chemical engineering, or equivalent (2) at least 3 years of experience in polymer technology (3) between 25 and 35 years of age
- 4. TRAINING INSTITUTIONS** (1) Osaka International Center (OSIC), JICA (2) Osaka Municipal Technical Research Institute (OMTRI)
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks.

ADVANCED MATERIALS

Jan. 20, '97 - Sep. 21, '97, 6 participants

先進材料

J-96-00443

- 1. PURPOSE** This course is organized to introduce comprehensive knowledge of advanced glass materials to engineers, technologists and researchers well versed in glass technology. This course aims to foster technologists who can play a leading role in research and development and study groups in the field of glass technology in participating countries.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants and individual research work in the laboratory. (1) lectures: advanced glass materials (8 days) (2) practices: preparation of glass samples, atomic absorption method (6 days) (3) specialized training (5 months) Each participant is to take one of the following subjects for their individual research. (a) study of glass structure (b) structure and physical properties of ion-implanted glass (c) chemical resistance of glass (d) crystallization of glass under microgravity (e) separation property of porous glass (f) preparation and structure of halide glass, excluding fluoride (g) quartz glass
- 3. QUALIFICATION OF APPLICANT** (1) university graduate with a minimum of a masters degree in a technology-related subject (2) senior engineer employed by governmental research or educational institution, or government companies, and engaged in research and development and/or manufacture in the field of glass technology, OR senior engineer employed by private companies and engaged in research and development and/or manufacture in the field of glass technology (3) under 35 years of age (4) at least three years' occupational experience in this field
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Osaka National Research Institute (ONRI)
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks.

INDUSTRIAL BIOTECHNOLOGY

May 20, '96 - Mar. 16, '97, 5 participants

生命工学研究

J-96-00285

- 1. PURPOSE** The course is designed for researchers presently engaged in biotechnology in participating countries. Through laboratory work, basic knowledge and techniques in biotechnology and bioscience will be acquired, and ability to independently carry out research applicable to industrial needs in the own countries will be cultivated.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of individual training (9 months) in the laboratory. Each participant is to take one of the following subjects for their individual research: (1) studies on the mechanism of tumor metastasis (2) studies on basic technology in bioorganic chemistry (3) genetic molecular engineering (4) characterization of microbial ecosystems of biodegradation of oil in sea water (5) production of functional lipids from microorganism (6) studies on bioactive substances from microorganisms (7) development of biodegradable plastics (8) effective utilization of biomass using enzymes (9) analysis and gene engineering of biological nitrogen fixation (10) molecular biological approach to the animal circadian clock
- 3. QUALIFICATION OF APPLICANT** (1) researcher with a bachelor's degree, capable of carrying out basic research in the field of biotechnology (2) presently engaged in research work in the field of biotechnology, and have occupational experience of more than three years in the said field. Administrative officers are not qualified for this course (3) between 25 and 35 years of age
- 4. TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) National Institute of Bioscience and Human-Technology (NIBH), Agency of Industrial Science and Technology, Ministry of International Trade and Industry
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

**QUALIFIED METAL CASTING TECHNOLOGY II
(ADVANCED FOUNDRY ENGINEERING)**

Sep. 2, '96 - Feb. 28, '97, 5 participants

高品位鋳物技術II

J-96-00021

- 1. PURPOSE** The purpose of the course is to provide engineers who are presently engaged in research institutes or industries with techniques and knowledge on problems of quality and productivity of metal castings; from sand control, modern moulding processes and casting design to melting control of metals, especially ferrous metal castings.
- 2. MAIN FEATURES OF CURRICULUM** This course mainly covers: (1) foundry sands and modern moulding processes (2) casting design (3) melting and casting techniques (4) equipment modernizations (5) advanced materials and technologies
- 3. QUALIFICATION OF APPLICANT** (1) engineer presently engaged in actual works of foundry engineering/technology at industry/research or educational institute with more than five years of experience (2) university graduate or equivalent (3) between 27 and 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Government Industrial Research Institute, Nagoya (GIRIN) (3) Industrial Research Institute, Aichi Prefectural Government
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks (100 hours).

SURFACE FINISHING TECHNOLOGY FOR MATERIALS (NEW PROCESSING IN METAL FINISHING, CORROSION PROTECTION, RECYCLING & WASTEWATER TREATMENT) II
May 13, '96 - Sep. 16, '96, 5 participants

表面改質技術(金属・非金属・新素材及び防食)II J-96-00066

- PURPOSE** The course is designed for those presently engaged in research institutes or industries to: (1) acquire knowledge and techniques on effective usage of materials, (2) improve quality of materials and products in participating countries, and (3) lead their industries to minimize problems.
- MAIN FEATURES OF CURRICULUM** This course mainly covers: (1) materials (metals and metallurgy, corrosion of metals) non-metals, (composites and new materials) (2) surface finishing technology (electro plating, electroless plating, electroforming, anodising, galvanizing, plating on plastics, plasma coating, PVD, CVD, powder coating, phosphating, metal colouring, surface hardening & strengthening, ion-plating, ceramic film coating) (3) related technology (resource recycling, waste water treatment, equipment modernization)
- QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) qualified in their respective fields (3) occupational experience of more than two years (4) under 35 years of age
- TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Industrial Research Institute, Aichi Prefectural Government (3) Nagoya University (4) private industries and other institutes
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for three and a half weeks (85 hours).

STEEL PROPERTIES AND ITS APPLICATIONS

June 3, '96 - Oct. 6, '96, 9 participants

鋼材の加工と加工特性 J-96-00256

- PURPOSE** The purpose of this training course is to provide participants with indispensable knowledge and techniques in the usage of steel, the selection of fabrication methods and conditions appropriate to the properties of each type of steel.
- MAIN FEATURES OF CURRICULUM** Participants will understand steel properties and its application through acquiring knowledge of production methods, processes, property evaluation, testing and inspection methods of steel materials. The subjects covered in the course are: (1) fundamental properties of steel (2) steel production and properties (3) techniques of testing and inspection (4) casting, forging and welded structures (5) quality control
- QUALIFICATION OF APPLICANT** (1) have more than three years' occupational experience in the field of production, fabrication or inspection of steel products (2) university graduate or equivalent in metallurgy or mechanical engineering (3) 35 years of age or less
- TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kitakyushu International Techno-cooperative Association (3) Kyushu Institute of Technology
- REMARKS** A compulsory 25 hour Japanese language course will be conducted prior to the technical training.

HEAT TREATMENT TECHNOLOGY

Sep. 9, '96 - Dec. 5, '96, 8 participants

熱処理技術 J-96-00260

- PURPOSE** The purpose of the course is to train the participants who are engaged in research institutes or industries with techniques and knowledge on heat treatment so as to enable them to contribute to promotion and modernization of industries in their countries through upgrading the reliability of machinery and metallic products.
- MAIN FEATURES OF CURRICULUM** This course mainly covers: (1) metallic materials (carbon steels, alloyed steels) (2) heat treatment equipment (heat treatment furnaces, related equipment) (3) heat treatment technology (annealing, quenching, tempering, normalizing, carburizing, nitriding, and others) (4) related technology and advanced technology (ion-nitriding, physical vapor deposition, chemical vapor deposition, plasma treatment) (5) others (discussion, study tours, report presentation)
- QUALIFICATION OF APPLICANT** (1) engineer presently engaged in heat treatment technology at industry/research or technical training institutes with more than two years of experience (2) university graduate or equivalent (3) between 26 and 38 years of age
- TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Industrial Research Institute, Aichi Prefectural Government (3) Aichi Industrial Research Association (AIRA)
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

MAINTENANCE OF CONSTRUCTION MACHINERY II

May 14, '96 - Aug. 11, '96, 9 participants

建設機械整備II J-96-00162

- PURPOSE** The purpose of the course is to provide participants with techniques and knowledge on planning and management of maintenance shops as well as maintenance of construction machinery.
- MAIN FEATURES OF CURRICULUM** Most part of the course is practical training in factories and workshops, using actual construction machinery. It covers: (1) theoretical aspects of management and maintenance (2) practical maintenance techniques of major components (engine, clutch, torque converter, transmission, power shift transmission, final drive, differential gear, brake, steering, hydraulic system, undercarriage, etc.) (3) practical maintenance/operation techniques of major machines (bulldozer, grader, wheel loader, hydraulic excavator, crane, compaction machinery, dump truck, etc.)
- QUALIFICATION OF APPLICANT** (1) university graduate in mechanical engineering or equivalent with more than three years of occupational experience (2) under 40 years of age (3) presently engaged in or expected to be engaged in planning and administration work of construction machinery in the near future
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Construction Equipment Division, Ministry of Construction (3) Japan Construction Mechanization Association (JCMA)

**AUTOMATIC CONTROL
(GENERAL INTRODUCTION)**

July 1, '96 - Nov. 21, '96, 7 participants

自動制御(基礎)

J-96-00310

- PURPOSE** This training course is programmed for those who specialized in mechanical engineering, electrical engineering and measurement in the faculty of technology at university. The purpose of the course is to provide participants with basic theory and practice on automatic control, automatic control devices and related technology.
- MAIN FEATURES OF CURRICULUM** The course is conducted in the form of lectures, practice, exercise on simulator and factory observations, in order to enhance participants' basic and practical knowledge of automatic control to prevent malfunction and damage of the whole system in plant. The following subjects are mainly covered in the course: (1) basic of automatic control (2) basic of control theory (3) computer literacy (4) basic lesson and application of micro computers (5) process control (6) digital process control system simulation (7) sequency control (8) industrial electric control system
- QUALIFICATION OF APPLICANT** (1) have more than four years of occupational experience in the field of production, planning of plants and machinery (2) presently engaged in automation, or will be engaged in, in the near future (3) university graduate in electrical, control or mechanical engineering, or equivalent (4) 40 years of age or less
- TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kitakyushu International Techno-cooperative Association (3) Kyushu Institute of Technology (4) Fukuoka Industrial Technology Center, Mechanics and Electronics Research Institute
- REMARKS** A compulsory 25 hour Japanese language course will be conducted prior to the technical training.

**MACHINE CONDITION DIAGNOSIS TECHNIQUE
(INSPECTION TECHNIQUE FOR PLANT MAINTENANCE)**

June 24, '96 - Oct. 20, '96, 8 participants

設備診断技術

J-96-00338

- PURPOSE** This training course is set up for maintenance directors, managers and engineers who are responsible for planning, management and supervision of maintenance activities. The purpose of the course is to provide participants with new inspection techniques for plant maintenance including the latest diagnosis techniques and condition based maintenance system.
- MAIN FEATURES OF CURRICULUM** The training course is programmed to help participants acquire knowledge on inspection techniques including latest condition diagnosis techniques and condition based maintenance in practice through a series of lectures, practice with simulators and plant observations. The following subjects are covered in the course: (1) introduction to maintenance management and engineering (2) reliability and maintainability engineering (3) fundamental of machine condition diagnosis technique (CDT) (4) vibration and its measurement (5) vibration analyzing instrument (6) diagnosis methods for rotating machines and elements (7) basic concept of condition based maintenance system (CBM) (8) non-destructive testing (9) maintenance control (10) application of computer system to CDT and maintenance control (11) practice of maintenance management and machine diagnosis (12) corrosion diagnosis (13) diagnosis of electrical machines (14) total productive maintenance (TPM)
- QUALIFICATION OF APPLICANT** (1) presently engaged in maintenance work in industrial plants and have more than three years of maintenance experience (2) have more than one year of experience in computer operation (3) university graduate in engineering or equivalent (4) 35 years of age or less
- TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kitakyushu International Techno-cooperative Association (3) Kyushu Institute of Technology
- REMARKS** A compulsory 25 hour Japanese language course will be conducted prior to the technical training.

PLANT MAINTENANCE MANAGEMENT

Jan. 13, '97 - May 21, '97, 9 participants

保全管理

J-96-00413

- PURPOSE** The purpose of this course is to enhance the maintenance management capability of managers and engineers in the maintenance departments of processing industries. The course provides participants with training on effective and rationalized utilization of management resources such as workers, materials, equipment, information and funds. The course also aims at technical transfer of concrete maintenance management procedures required for the execution of preventive maintenance.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on the introduction of Japanese experience or the present state of the maintenance management of leading Japanese companies of various industrial fields to enable participants to apply and manage the maintenance function of each corporation in respective countries. The subjects covered in the course are: (1) outline of maintenance and its system (2) management of plants (3) computer literacy (4) management policy and control (5) maintenance of bearing (6) actual samples of corrosion and countermeasures (7) the diagnosis technique of machine (8) non-destructive tests (9) training of repairing techniques (10) improvement methods (11) repairing and change of parts (12) inspection of electric equipment manufacturing and maintenance of electric equipment (13) management and data (14) how to make inspection plan (15) scheduled time for repairing and repairing plan (16) control of maintenance materials, and management of welding and assembling (17) activities of maintenance in Japanese leading factories
- QUALIFICATION OF APPLICANT** (1) have more than three years' occupational experience in the field of plant maintenance (2) university graduate or equivalent in engineering (3) not less than 30 and not more than 40 years of age
- TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kitakyushu International Techno-cooperative Association
- REMARKS** A compulsory 25 hour Japanese language course will be conducted prior to the technical training.

HIGH TECHNOLOGY OF METAL WORKS II

Sep. 9, '96 - Feb. 28, '97, 6 participants

金属加工高品質化技術II

J-96-00175

- PURPOSE** The course aims at providing engineers who are at present working at research institutes or industries with techniques and knowledge on metal works engineering, die making and design, precision measurement, metal working and related technologies.
- MAIN FEATURES OF CURRICULUM** This course mainly covers: (1) metal works technologies (2) die-making and design including CAD/CAM (3) precision measurement technology (4) advanced technology (5) related technologies; heat treatment, surface modification, etc.
- QUALIFICATION OF APPLICANT** (1) engineer presently engaged in metal works technology at industries, research institutes or educational institutes with more than two years of experience (2) university graduate or equivalent (3) between 26 and 35 years of age
- TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) National Industrial Research Institute of Nagoya (NIRIN) (3) Industrial Research Institute, Aichi Prefectural Government (AIRI) (4) Aichi Industrial Research Association (AIRA) (5) Nagoya University
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks (100 hours).

DESIGNING AND IMPROVEMENT OF PRODUCTION

May 13, '96 - Sep. 22, '96, 5 participants

生産システム改善技術

J-96-00266

- 1. PURPOSE** The course is designed for those who are in a position to assist and upgrade quality and productivity in small and medium industries. The course focuses on the production system of these industries, namely, the process of converting various inputs such as human resources, machines, materials and methods into products. The objective of the course is to deepen the understanding of participants on ways to design the production system and to conduct continuous improvement to the elements by comparing experiences of Japanese industries. (Continuous improvement is sometimes referred to as *Kaizen* in Japanese.)
- 2. MAIN FEATURES OF CURRICULUM** In the course, the emphasis is put on lectures, practical training and observations. The main themes are: (1) designing skill of production system (2) principle and practice of production management such as production control, quality control and cost control (3) standardization and improvement skill of operations (*Kaizen* skill) (4) planning and promotion of improvement program and the required leadership.
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or equivalent with occupational experience of more than five years (2) officials of public organization who are providing guidance service to regional small and medium manufacturing industries, managers and staff in manufacturing industries (3) under 45 years of age
- 4. TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) CHU-SAN-REN (Central Japan Industries Association) (3) related industries
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

MATERIAL HANDLING SYSTEM IN THE PLANT FOR HIGH PRODUCTIVITY

Nov. 25, '96 - Apr. 20, '97, 6 participants

工場搬送システム

J-96-00414

- 1. PURPOSE** The ratio of haulage in total production cost is considerably large in manufacturing. Therefore, in order to reduce production costs, it is very important to plan and introduce appropriate material handling in factories. Considering the above condition, this training course aims at instructing participants about planning and basic design of equipment used in material handling in plants.
- 2. MAIN FEATURES OF CURRICULUM** (1) basis of physical distribution, and the outline of physical distribution equipment (2) factory plan and distribution management (3) planning and case studies of product distribution in factories (4) outline of industrial engineering (5) basic design of distribution equipment (cranes) by personal computer and CAD (6) plant maintenance and maintenance management
- 3. QUALIFICATION OF APPLICANT** (1) university graduates in engineering or equivalent (2) be engineers who have at least 3 years of occupational experience in the field of plant equipment (3) 40 years of age or less
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kitakyushu International Techno-cooperative Association
- 5. REMARKS** (1) A compulsory 25 hour Japanese language course will be conducted prior to the technical training.

AIR-CONDITIONING ENGINEERING

June 10, '96 - Oct. 10, '96, 6 participants

空調技術

J-96-00383

- 1. PURPOSE** This course is organized for the purpose of fostering middle class administrative engineers who are equipped with comprehensive techniques and knowledge required to design, install, operate, and maintain various kinds of most advanced air-conditioning systems. It is expected of them to train engineers and give them proper instructions and advice, after finishing this course.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of lectures and practices as follows: (1) hardware (fundamentals of air conditioner) (2) software (general study of air conditioning systems) (3) quality control (a) process management (b) quality control technology (4) practice (a) general work of system design (b) drawing up plans (c) application designing of equipment (d) execution of general design work (5) factory visits for related equipment
- 3. QUALIFICATION OF APPLICANT** (1) graduates from university majoring in the field of mechanical engineering or electrical engineering (2) under 40 years of age (3) experience of at least three years in air-conditioning engineering including system layout
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Kanacka Training Center, Sakai Plants, Daikin Industries Ltd. (3) Daikin Plant Co., Ltd.
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks.

OIL HYDRAULICS AND MECHATRONICS

Oct. 28, '96 - Mar. 28, '97, 6 participants

油圧とメカトロニクス

J-96-00415

- 1. PURPOSE** The purpose of the course is to enhance the capabilities of mechanical or electrical engineers who require knowledge of machinery controls through the combined technologies of mechanics, oil hydraulics and electronics as follows:
 - (1) Basic concept of machinery control technology in oil hydraulics, electrohydraulic systems, power electronics and servo devices,
 - (2) Basic theories of servo control, hydraulic components, power electronics components and variable speed electric motors,
 - (3) Actual applications of various oil hydraulic systems, electronic power control systems and energy saving systems,
 - (4) Observation visits to manufacturers related to the above items.
- 2. MAIN FEATURES OF CURRICULUM** Participants are to attend lectures and practices as follows:
 - (1) Basic subjects such as hydro dynamics computational fluid dynamics, servo control theory, power semi-conductors, hydraulic components, hydraulic control valves, mechatronics components,
 - (2) Electro-hydro systems, hydraulic systems, hydraulic actuators,
 - (3) AC servo motor controls, inverter, computer applications,
 - (4) Applications to construction machinery, injection molding machine, marine machinery, robot system, energy saving systems,
 - (5) Design practice CAD operation, piston pump design, C language.
- 3. QUALIFICATION OF APPLICANT**
 - (1) Occupational experience in either research, design, production or maintenance in machinery controls, oil hydraulics, electro-mechanics,
 - (2) University graduate or equivalent,
 - (3) 35 years of age or less.
- 4. TRAINING INSTITUTIONS**
 - (1) Kyushu International Centre (KIC), JICA
 - (2) Kitakyushu International Techno-Cooperative Association
- 5. REMARKS** A compulsory 25 hours Japanese language course will be conducted prior to the technical training.

INSPECTION AND TESTING TECHNIQUES FOR HOUSEHOLD ELECTRICAL APPLIANCES

Oct. 1, '96 - Dec. 1, '96, 5 participants

家庭用電気製品検査技術

J-96-00416

- PURPOSE** The purpose of this course is to introduce to the participants inspection and testing techniques for household electrical appliances by providing lectures and practical training, in order to help these countries develop or maintain their industrial product quality and strengthen their competitive positions in the world market. The course is expected to be one of the measures aimed at overcoming the trade imbalance problem.
- MAIN FEATURES OF CURRICULUM** This course consists of lecture, practical training and observation tour. Introduction to the export inspection system, industrial standardization, and quality control are included in lectures. Technology transfer by practical training uses several general electric equipments.
- QUALIFICATION OF APPLICANT** (1) testing staff belonging to government nation wide, or public institution authorized by government nation wide, or under the control of the government (2) be with more than three years of occupational experience in electric field (3) college graduate or equivalent, having majored in electrical, electronics, or mechanical engineering (4) between 25 and 40 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) National Institute of Technology and Evaluation, Ministry of Trade and Industry (MITI) (3) JMI Institute (4) Japan Electrical Testing Laboratory (JET)

AUTOMOBILE SAFETY AND POLLUTION CONTROL TECHNOLOGY

May 13, '96 - July 7, '96, 12 participants

自動車の安全・公害対策技術

J-96-00475

- PURPOSE** The purpose of this course is intended for administrative engineers in leading posts to prepare and promote policies and measures for socio-economical growth through motorization, and for specialists in the automotive industry. The participants in this course will undergo training of highly specialized contents, such as automotive safety, pollution control, energy problems, and new technology applications. It is hoped that this training will be of help not only to foster specialists in automotive engineering but also to assist the plans and development for the socio-economic growth along with motorization. Applicants are requested to note that the programme of this course does not aim at offering techniques and know-how immediately useful in automobile production and repair work.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of Japanese experience and basic theories of automobile safety and pollution control technology. The main themes are: (1) motor industry in Japan (2) motorization and infrastructure (3) advanced technology (4) structure, performance of technology (5) practice of automobile performance test.
- QUALIFICATION OF APPLICANT** (1) administrative engineer presently engaged in leading post with at least three years experience in promotion of the motorization and automotive industry (2) university graduate with experience in mechanical engineering (3) over 25 and under 40 years of age
- TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) Japan Automobile Research Institute (JARI)

SHIP SAFETY AND MARINE POLLUTION PREVENTION -Implementation of the International Conventions-

Jan. 7, '97 - Dec. 7, '97, 20 participants

船舶安全・海洋汚染防止

J-96-00464

- PURPOSE** The purpose of the course is to provide participants with fundamental and practical knowledge, and applicable technology in the field of construction, repairing and maintenance of ships, and also in the field of inspection in accordance with requirements of IMO/ILO conventions, and thus to contribute globally to Ship safety and Marine pollution prevention.
- MAIN FEATURES OF CURRICULUM** This course consists of (1) obligatory lectures for all participants, (2) optional lectures for which participants will be divided into 3 groups according to their experience, and (3) optional practical training in (a) ship survey procedure and practice or (b) ship construction, repairing and maintenance. The following major subjects will be covered in the course. (1) obligatory subjects: basic plan and design on ships; hull design; outfitting design on ships; propulsion engines; electric and communication equipment; quality control; international conventions-general. (2) optional subjects (a) for administration officials: implementation and interpretation of international conventions; regulation on ship safety and marine pollution prevention; plan approval procedure; procedures of surveys during construction and periodical surveys. (b) for shipyard engineers: hull construction; outfittings and maintenance of ships; installation and maintenance of main and auxiliary engines; quality assurance; technical standards on tests and examination; hull and machinery damage and countermeasure. (c) for minor shipyard engineers; ship design and construction-general; ship maintenance; quality assurance; ship inspection procedure; ship repairing; implication and interpretation of international conventions.
- QUALIFICATION OF APPLICANT** (1) applicants should be one of the followings: (a) administration officials in the field of ship safety and marine pollution prevention. (ship safety administration officers, ship inspectors, PSC officers, etc.) (b) engineers in the field of shipbuilding and marine engineering. (hull and machinery engineers, owners superintendents, instructors/lecturers, etc.) (c) engineers in the field of ship repairing or maintenance. (full and machinery maintenance engineers, etc.) (2) applicants should also be graduate engineers or equivalent, and have at least one year experience of (1) above. (but, this occupational experience is not required for administration officials of (1) (a) above.) (3) not more than 35 years of age.
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Maritime Technology and Safety Bureau, Ministry of Transport (3) Overseas Shipbuilding Cooperation Center (OSCC)
- REMARKS** A compulsory intensive Japanese language course for 200 hours will be conducted prior to the technical training.

RENOVATION OF INDUSTRIAL EQUIPMENT

Feb. 17, '97 - July 11, '97, 9 participants

設備のリノベーション

J-96-00488

- PURPOSE** The purpose of this course is to enhance the capability of engineers by learning the basic knowledge of the utilization of existing equipment and facilities effectively, to find out the capability of the renovation, and to redesign existing equipment. The course also aims at providing the participants with skills in preparing purchase specifications of improved equipment parts.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on providing the participants with the basic techniques and their application as well as project management which will help them to upgrade their required techniques to improve their operation. The subjects covered in this course are: (1) basic techniques (a) introduction to renovation of industrial equipment (b) computer literacy (c) techniques improving equipment (d) sequence control (e) process control (f) introduction to maintenance (g) maintenance management (h) equipment inspection technique (inspection using five sense, machine condition diagnosis technique) (i) rust prevention and corrosion prevention (j) welding processes (k) selection of materials (l) testing of materials (m) selection of motors and electrical control (n) nondistinctive inspection (o) CAD (2) modification techniques (a) case study of plant design and practice (b) practice in design of heat exchange (c) design of pressure vessels (d) selection of equipment/devices and writing specifications thereof (e) selection of general purpose machines and writing specifications thereof (f) plan and design of piping (g) design of conveyor unit (h) case study of equipment renovation (i) in-plant training
- QUALIFICATION OF APPLICANT** (1) have more than five year's experience in equipment design, construction or maintenance in the field of process industries such as chemical, cement, oil refinery, iron and steel plant (2) university graduate in mechanical or chemical engineering or equivalent (3) 40 years of age or less.
- TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kitakyushu International Techno-cooperative Association
- REMARKS** A compulsory 25 hour Japanese language course will be conducted prior to the technical training.

INSPECTION AND TESTING TECHNIQUE FOR TEXTILE PRODUCTS

Jan. 16, '97 - Mar. 26, '97, 8 participants

繊維製品検査技術

J-96-00417

- PURPOSE** The purpose of this course is to introduce to the participants inspection and testing techniques for textile products through lectures and practical training, in order to help these countries develop or maintain their industrial product quality and strengthen their competitive positions in the world market. The course is expected to be one of the measures that helps contribute to overcome the trade imbalance problem.
- MAIN FEATURES OF CURRICULUM** This course consists of lecture, practical training and observation tour. The lectures include introductions to the Japanese textile industry, quality assurance system and quality control. Inspection and testing technology will be transferred by using concrete materials and equipments.
- QUALIFICATION OF APPLICANT** (1) testing staff belonging to government inspection organization, or public institution authorized by government inspection organizations, or under the control of the government, with more than three years of occupational experience in the textile field (2) college graduate or equivalent, having majored in textile or chemical engineering (3) between 25 and 40 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) National Institute of Technology and Evaluation, MITI (3) Japan Textile Products Quality and Technology Center (4) Japan Synthetic Textile Inspection Institute Foundation (5) Japan Spinners Inspecting Foundation (6) Japan Wool Products Inspection Institute Foundation

PACKAGING ENGINEERING

Aug. 27, '96 - Oct. 20, '96, 9 participants

包装技術

J-96-00239

- PURPOSE** The course aims at providing the participants with the opportunity to understand Japan's current technology of packaging, especially focused on "transport packaging" and "consumer (food) packaging", so as to contribute to the economic and social development of the participating countries.
- MAIN FEATURES OF CURRICULUM** The following major subjects will be covered in the course. (1) guidance, introduction: the status of packaging in Japan (2) packaging materials (group A: transport packaging techniques, group B: consumer packaging techniques)
- QUALIFICATION OF APPLICANT** (1) packaging engineer presently directly engaged in package industry (2) have more than three years of experience in the relevant field (3) university graduate or equivalent (4) under 40 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japan Packaging Institute (JPI)

ADVANCED INDUSTRIAL TECHNOLOGY

Aug. 26, '96 - July 27, '97, 5 participants

産業技術研究

J-96-00366

- PURPOSE** This course is to acquaint participants with advanced industrial technology in Japan and to help the participants to develop into researchers capable of carrying out the basic research needed to enhance the research potential of their own countries. It is not the purpose of the course to familiarize the participants with existing technologies that can be immediately applied in their countries, but rather to have them master the method used in conducting basic research.
- MAIN FEATURES OF CURRICULUM** This course consists of individual training in the laboratory. Each participant is to take one of the 23 subjects prepared by the following 9 institutes for their individual research. The institutes are: (1) Mechanical Engineering Laboratory, MEL (2 subjects) (2) National Institute of Materials and Chemical Research, NIMC (8 subjects) (3) National Institute of Bioscience and Human Technology, NIBH (2 subjects) (4) Hokkaido National Industrial Research Institute, HNIRI (1 subject) (5) National Institute for Resources and Environment, NIRE (2 subject) (6) National Industrial Research Institute of Nagoya, NIRIN (2 subject) (7) Kyushu National Industrial Research Institute, KNIRI (1 subject) (8) Osaka National Research Institute, ONRI (2 subject) (9) Chugoku National Industrial Research Institute, CNIRI (3 subject)
- QUALIFICATION OF APPLICANT** (1) researcher with a bachelor's degree, capable of carrying out basic research in the field of industrial science and technology (2) presently engaged in research work in the field of industrial science and technology and have occupational experience of more than three years in the said field. Administrative officers are not qualified for this course (3) over 25 and under 35 years of age
- TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) Laboratories of Agency of Industrial Science and Technology (AIST), Ministry of International Trade and Industry
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks (100 hours).

INDUSTRIAL POLLUTION CONTROL RESEARCH

Aug. 19, '96 - Dec. 15, '96, 6 participants

産業公害防止

J-96-00363

- PURPOSE** The purpose of this course is to contribute to upgrading knowledge and techniques of scientists and researchers in the field of pollution control engineering, including computer technology, especially to understand knowledge and techniques in their own speciality through exercise and practical training on each subject in the individual research training.
- MAIN FEATURES OF CURRICULUM** This course consists of common lectures for all participants (2 weeks) and individual research training in the laboratory. Common lectures are given to provide participants with fundamental knowledge of industrial pollution control. Participants will then choose a certain subject on pollution control technology out of 15 to 20 subjects.
- QUALIFICATION OF APPLICANT** (1) scientist, a researcher or a university teacher in the field of pollution control technology with more than three years occupational experience. Administrative officers are not qualified for this course. (2) university graduate or equivalent (3) have the knowledge of computer programming with FORTRAN or BASIC languages in the course of simulation technology (4) no more than 40 years of age
- TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) National Institute for Resources and Environment (NIRE)

ENERGY CONSERVATION

May 21, '96 - July 11, '96, 13 participants

省エネルギー

J-96-00315

- 1. PURPOSE** The purpose of the course is to provide the participants with information concerning the administrative and technical aspects of Japan's energy conservation, so that they will be able to later use this knowledge in future energy conservation efforts in their own respective countries.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the following major subjects will be covered through lectures, discussions, group case studies, practice and observation trips. (1) Japanese energy conservation policy and the present conservation situation in Japan (2) development of energy conservation and new technology in Japan (3) energy conservation situation in major Japanese industries (4) industrial energy conservation technology (5) methods for promoting energy conservation in industry (6) energy consumption measurement and data analysis (7) group case study presentation of the promotion of energy conservation in a model factory
- 3. QUALIFICATION OF APPLICANT** (1) university/college graduate or equivalent and presently employed in government, governmental institutions, industrial associations, or companies (2) presently engaged in work in the energy field or expected to be engaged in such work after returning to the country (3) be under 45 years of age
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Agency of Natural Resources and Energy, Ministry of International Trade and Industry (3) Energy Conservation Center, Japan (ECC)
- 5. REMARKS** Country Reports will be highly utilized both for the selection of participants and for the Comparative Studies.

ENERGY MANAGEMENT

Jan. 20, '97 - June 5, '97, 6 participants

エネルギー管理

J-96-00418

- 1. PURPOSE** The purpose of this course is to upgrade the knowledge and skills of managers and engineers on energy management of administration, so as to conserve energy and mitigate environmental pollution through proceeding energy management effectively and add practical effect to production activities.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is laid on subjects that will help participants to practically and concretely solve the problems in the field of energy management of their own countries. The subjects covered in the course are: (1) introduction of energy management (2) computer literacy (3) basic thermo-dynamics and basic automatic control (4) heat balance and heat measurement (5) basic theory of electricity (6) methodology of energy conservation (7) energy conservation measures for industrial furnaces (8) energy system for environmental pollution control (9) maintenance management and data (10) in-plant training
- 3. QUALIFICATION OF APPLICANT** (1) have energy management experience or will be in charge of energy management in near future (2) university in Japan graduate or equivalent (3) 35 years of age or less (4) **HAVE A SUFFICIENT COMMAND OF WRITTEN AND SPOKEN JAPANESE**
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kitakyushu international Techno-cooperative Association
- 5. REMARKS THIS COURSE WILL BE CONDUCTED IN JAPANESE.**

HYDRO-ELECTRIC POWER ENGINEERING II (FOR CIVIL ENGINEERS)

May 14, '96 - June 29, '96, 9 participants

水力発電II(土木)

J-96-00055

- 1. PURPOSE** The purpose of the course is to provide the participants with the latest information and knowledge concerning managing and technical aspects of the Japanese hydro-electric power industry so that the participants would be able to play their greater rôle for further progress and advancement of hydro-electric power generation in their respective countries.
- 2. MAIN FEATURES OF CURRICULUM** The course is formulated to cover both aspects of "electrical/mechanical engineering" and "civil engineering" alternatively. This year (Japanese Fiscal Year 1996), mainly civil engineering matters will be focused. The following are the major subjects this year: (1) outline of Japanese electric power industry (2) Japanese government policy and regulation relating to Japanese electric power industry (3) method of planning, designing, construction and operation and maintenance technique of hydro-power stations from the view point of civil engineering
- 3. QUALIFICATION OF APPLICANT** (1) civil engineers who are presently employed by governmental or private hydro-electric power utilities (2) technical college graduate or equivalent and have more than five and less than ten years of practical experience in the field of hydro-electric power engineering
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japan Electric Power Information Center, Inc. (3) Electric Power Development Co., Ltd. (4) Agency of Natural Resources and Energy, Ministry of International Trade and Industry

OPERATION AND MAINTENANCE OF COAL-FIRED THERMAL POWER PLANTS

Oct. 8, '96 - Nov. 20, '96, 5 participants

石炭火力発電

J-96-00352

- 1. PURPOSE** The purpose of the course is to provide the participants with the information concerned with the administrative and technical aspects of the coal-fired thermal power engineering in Japan so that the participants, as instructors for operation and maintenance staff, would be able to apply the knowledge obtained in the course for the future development in the said field in their countries.
- 2. MAIN FEATURES OF CURRICULUM** Following subjects are referred in the course; (1) operation and maintenance technique of coal-fired thermal power stations in Japan (2) countermeasures for environmental protection (3) Japanese electric power industry
- 3. QUALIFICATION OF APPLICANT** (1) electrical and/or mechanical engineers presently employed at governmental institutions or private companies in the field of coal-fired thermal electric power generation and have more than five years of occupational experience in this field (2) technical college graduate or equivalent
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Agency of Natural Resources and Energy, Ministry of International Trade and Industry (3) Japan Electric Power Information Centre, Inc. (4) Electric Power Development Co., Ltd.

NUCLEAR POWER GENERATION

Jan. 7, '97 - Mar. 13, '97, 5 participants

原子力発電

J-96-00419

- PURPOSE** The purpose of the course is to provide the participants with general introductory information on the administrative and technical aspects of Japan's nuclear power industry, which includes experience gained through planning, design, construction and operation of nuclear power plants, so that the participants will be able to implement the future development plan of nuclear power in their countries.
- MAIN FEATURES OF CURRICULUM** Major subjects in this course are as follows: (1) lectures (a) outline of nuclear power generation in Japan safety regulation and administration for commercial nuclear power plants (b) major system of boiling water reactor and pressurized water reactor (c) construction of nuclear power plant (d) operation and maintenance (2) exercise (a) operation and plant behaviour related to plant start-up, shutdown and accidents, etc. by using a compact simulator (b) maintenance and inspection (non-destructive test)
- QUALIFICATION OF APPLICANT** (1) nuclear, electrical and/or mechanical engineers presently employed at governmental institutions or private companies in the field of electric power generation and have more than three years of occupational experience in this field (2) university graduate or equivalent (3) not more than 45 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Agency of Natural Resources and Energy, Ministry of International Trade and Industry (3) Japan Electric Power Information Center, Inc. (JEPIC) (4) Japan Atomic Power Company (JAPC)

ELECTRIC POWER MANAGEMENT II

Sep. 3, '96 - Oct. 21, '96, 11 participants

電気事業経営II

J-96-00153

- PURPOSE** The purpose of the course is to introduce participants to Japan's electric power industry focusing on management methods adopted in Japan for maintaining stable supply of electric power to cope with the increasing power demand.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on lectures, which mainly cover the following topics: (1) outline of the electric power industry in Japan (2) power development plan (3) automatic load dispatching system (4) power system planning and operation (5) electricity sales (6) power distribution (7) financial management (8) personnel development and labor management
- QUALIFICATION OF APPLICANT** (1) manager-class engineer in electric power utilities with at least ten years working experience (2) between 32 and 50 years of age
- TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Agency of Natural Resources and Energy, Ministry of International Trade and Industry (3) Japan Electric Power Information Center, Inc. (4) Chubu Electric Power Company, Inc.

ELECTRIC POWER DISTRIBUTION SYSTEM MANAGEMENT

Aug. 26, '96 - Nov. 2, '96, 7 participants

配電システム管理

J-96-00512

- PURPOSE** The purpose of the course is to impart information on administrative and technical aspects of Japan's electric power distribution engineering system so that participants will be able to utilize the knowledge obtained from the course for the future development of this field in their countries. Note: This course deals with distribution systems from secondary sides of distribution substations to service wires and does not cover transmission lines or interior wiring. The voltage of distribution lines is approximately from 6 KV to 22 KV in Japan.
- MAIN FEATURES OF CURRICULUM** This course consists of lectures and visits. The main themes are: (1) outline of electric power industry in Japan (2) management techniques (total quality control, education system, safety measures, etc.) (3) power demand and supply schemes (4) transmission of electrical energy (5) distribution of electrical energy (automatic distribution system, etc.) (6) visits (power stations, factories which produce power distribution apparatus, etc.)
- QUALIFICATION OF APPLICANT** (1) electrical power engineer presently employed at governmental or private electric power utilities in the field of electric power distribution (2) between 30 and 40 years of age (3) technical university graduate or equivalent, and have more than five years of practical experience
- TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Agency of Natural Resources and Energy (3) Japan Electric Power Information Center, Inc. (JEPIC) (4) Kansai Electric Power Co., Inc. (KEPCO)
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week.

COAL SCIENCE AND TECHNOLOGY

Sep. 23, '96 - Dec. 4, '96, 5 participants

石炭資源開発・利用

J-96-00312

- PURPOSE** The purpose of the training course is to provide participants with advanced knowledge and experience of coal exploration, exploitation, utilization and environmental engineering.
- MAIN FEATURES OF CURRICULUM** The course is divided into two sections-introductory and advanced. In the first section, participants are to study the following basic topics: (1) coal geology (2) mining (3) chemistry (4) mechanical engineering for coal utilization (5) environmental engineering. Five series of lectures on advanced topics relevant to the modern coal industry in the mentioned fields will be provided in the second section. Each participant can take one or more series of lectures. Related experimental study is also scheduled. Participants are advised to bring their own themes to study in the laboratories at Kyushu University under the supervision of instructors.
- QUALIFICATION OF APPLICANT** (1) have more than three years' occupational experience in the field of coal science and technology (2) university graduate or equivalent (3) 45 years of age or less
- TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kyushu University

COAL MINING AND PREPARATION

May 13, '96 - July 20, '96, 5 participants

採炭・選炭技術

J-96-00353

- 1. PURPOSE** The course aims to contribute to the technical up-grading of the participating countries, in terms of the coal mining and preparation technology as follows: (1) productivity and stable supply (2) mine safety (3) environmental protection and preservation (4) effective utilization of available resources
- 2. MAIN FEATURES OF CURRICULUM** The course will consist of the following major subjects: (1) lectures (a) coal mining history of Japan and recent technology (b) coal mining industry policy and governmental administration in Japan (c) general and practical technology of coal mining, roadway drive, coal preparation, central monitoring system, long wall mining, and environmental protection for coal mining (2) observation tours (a) under-ground collieries (b) open-cut mining site (c) manufacturers of related equipment (e.g. fan, pump, cooler, excavator, drum cutter)
- 3. QUALIFICATION OF APPLICANT** (1) university / college graduate with basic knowledge of coal mining or equivalent (2) mining engineer, preparation engineer or engineer in the field of coal mining industry who are presently employed by government institutions or private companies in the field of coal mining (3) have more than five years of practical experience (4) between 35 and 45 years of age
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Japan Technical Cooperation Center for Coal Resources Development (JATEC)

NUCLEAR TECHNOLOGY

May 7, '96 - June 19, '96, 8 participants

原子力基礎技術

J-96-00303

- 1. PURPOSE** The purpose of the course is to provide scientists and engineers who are engaged in the application of radioisotopes and the operation of nuclear reactors with both fundamental and practical knowledge of nuclear technology for reconfirmation. As technology transfer, this course also aims to instruct them in essential techniques for safe handling of radioisotopes and safe operation and utilization of nuclear reactors.
- 2. MAIN FEATURES OF CURRICULUM** This course mainly consists of common subjects for all participants, group exercises for two sub-groups, and individual practice in accordance with each participant's speciality. The major common subjects (lectures and laboratory exercises) are: (1) basic concepts and experiments (2) radiological protection (3) radiation monitoring (4) radiation and radioisotope application. Participants will be divided into two sub-groups to cover one of the following subjects of laboratory exercises. (A) radioisotope and radiation experiments (B) experiments and simulations of nuclear reactors
- 3. QUALIFICATION OF APPLICANT** (1) university/college graduate in science or technology, or equivalent (2) presently working in or will be working in an organization in the nuclear technology field (3) under 35 years of age
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japan Atomic Energy Research Institute (JAERI)

SEMINAR ON NUCLEAR SAFETY AND REGULATION

Oct. 13, '96 - Nov. 10, '96, 7 participants

原子力安全規制行政セミナー

J-96-00354

- 1. PURPOSE** The purpose of the seminar is to comprehend the Japanese setup of nuclear safety and regulations in general as well as the work-site system for the safety control of radiation through lectures and observation trips. It is also expected to exchange opinions and information between countries on matters concerning their immediate problems.
- 2. MAIN FEATURES OF CURRICULUM** In this seminar, the emphasis is put on introduction of Japanese systems by means of lectures and observation trips to various related organizations/facilities. The main themes to be covered in the seminar are: (1) regulations and administration for safety assurance and control in Japan (2) safety control at facilities using radioisotope and reactor.
- 3. QUALIFICATION OF APPLICANT** senior officer (section head or equivalent) in charge of national nuclear safety and regulation and have at least five years' experiences in this field
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Nuclear Safety Bureau, Science and Technology Agency (3) Japan Atomic Industrial Forum

GEOHERMAL ENERGY (ADVANCED)

Aug. 19, '96 - Dec. 15, '96, 10 participants

地熱エネルギーアドバンス

J-96-00442

- 1. PURPOSE** The purpose of the training course is to provide participants with effective training in the field of science and engineering to enable them to plan, execute and evaluate geothermal development projects for the maximum utilization of available energy resources, considering environmental conditions.
- 2. MAIN FEATURES OF CURRICULUM** Participants are divided into five groups: geologists, geophysicists, geochemists, drilling engineers and production engineers. All the participants will acquire advanced and comprehensive knowledge of the whole process of development of geothermal energy. Participants are expected to perform the following respective activities according to their specialized fields. (1) geologists: field reconnaissance, emphasized on geologic control of thermal manifestations (2) geophysicists: structural interpretation of the area, definition of the area extent and depth of the reservoir (3) geochemists: construction of a model of the geothermal system under exploration, comprehension of the systematic knowledge of geochemical prospecting methods in different thermal manifestations (4) drilling engineer: command of all the necessary techniques for rational drilling of geothermal wells such as cementing, stimulating and completing high temperature wells (5) production engineer: design and administration of production; distribution of production and reduction wells, control of production and all other related items
- 3. QUALIFICATION OF APPLICANT** (1) either be an ex-participant of JICA Group Training Course in "Geothermal Energy" at Kyushu University, or have been engaged in the field of geothermal energy development for at least three years (2) leading staff member in their organizations (3) university graduate or equivalent (4) over 25 and under 45 years of age
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Geothermal Research Centre, Faculty of Engineering, Kyushu University (3) Hatchobaru Geothermal Power Station

RADIOLOGICAL PROTECTION FOR RADIATION SAFETY OFFICERS AT NUCLEAR FACILITIES

Jan. 27, '97 - Mar. 6, '97, 5 participants

放射線安全管理実務者

J-96-00482

- PURPOSE** This course is designed for young engineers who are working at facilities or organizations concerned with nuclear energy. The purpose of the programme is to introduce them to beneficial knowledge for safe radiation control derived from recent science and technology, to present ideas and techniques of radiation protection through lectures, laboratory exercises and facility observations, and to contribute to improving the radiation protection system in each participant's home country. It is also anticipated that participants will master the techniques of using radiation measuring equipment.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on lecture and exercises in laboratory and field regarding radiation protection. The main themes are: (1) lecturers (1 week) (a) orientation of lectures and exercises (b) observation of facilities (Exhibition Center at Oarai Engineering Center) (c) general lectures (i) introduction to radiation protection (ii) basic knowledge of radiation (iii) radiation measuring equipment (iii-1) explanation of radiation measuring equipment (iii-2) statistical counting errors (iii-3) technical introduction to energy spectrum analysis of alpha, beta and gamma radiation (iii-4) measurement of gamma radiation (iv) biological effects of radiation on man and dose limits for radiation protection (v) environmental monitoring (vi) external radiation monitoring for occupational workers (vii) individual monitoring (viii) calibration and maintenance of radiation measuring instruments. (2) laboratory exercises (1 week) (a) radiation measurement practice using ion chamber, GM counter, ZnS (Ag) counter (b) radiation measurement practice using GM counting system (3) field exercises (1 week) (a) maintenance and calibration of radiation monitoring instruments (b) individual monitoring for internal and external exposure (c) environmental radiation monitoring (4) observation tour (1 week) observation tours to relevant facilities for radiation protection as listed below are conducted at the final stage of the course. (a) experimental fast reactor "Joyo" at Oarai Engineering Center, PNC. (b) Japan Atomic Energy Research Institute (JAERI) in Tokai (c) Advanced Thermal Reactor "Fugen" at Tsuruga, PNC. (d) a fabrication plant of radiation measuring equipment
- QUALIFICATION OF APPLICANT** (1) university graduate with basic knowledge of nuclear energy and radiation protection (2) radiation safety engineer who is working at facilities or organization concerned with nuclear energy except medical facilities for one to five years (3) over 23 and under to 35 years of age
- TRAINING INSTITUTIONS** (1) Tsukuba International Centre (TBIC), JICA (2) Power Reactor and Nuclear Fuel Development Corporation (PNC) (3) Tokai Works of PNC (4) Oarai Engineering Center of PNC

CONSULTANCY SERVICE FOR SMALL INDUSTRIES

Oct. 21, '96 - Feb. 28, '97, 10 participants

中小企業診断

J-96-00466

- PURPOSE** The purpose of this course is to provide personnel who extend their services to small-scale industries for promoting business efficiency, productivity and profitability with necessary knowledge and techniques to further develop and promote small-scale industries.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on lectures dealing mainly with: (1) system and measures for small industries in Japan (2) basic understanding of business management (3) techniques of business diagnosis. At the end of the program, participants will be divided into two groups to conduct a one-week practical business diagnosis.
- QUALIFICATION OF APPLICANT** (1) assigned to business diagnostic services, management consultancy, and extension services at an organization dealing with development and promotion of small scale industries (2) university graduate or equivalent in this field. In addition, **THE BASIC KNOWLEDGE TO PREPARE FINANCIAL STATEMENTS OF A BUSINESS CORPORATION IS PREREQUISITE CONDITION FOR PARTICIPATION IN THIS TRAINING COURSE** (3) have at least three years experiences of such activities as mentioned above, having already undergone the basic training on business management (4) between 30 and 45 years of age
- TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Aichi Industrial Research Association (3) Small and Medium Enterprise Management Consultants Association of Japan (4) Aichi Prefectural Small-and-Medium-Sized Enterprise Guidance Center (5) Aichi Institute of Technology (6) other related organizations
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

SEMINAR ON SMALL AND MEDIUM ENTERPRISES DEVELOPMENT POLICIES

May 6, '96 - July 14, '96, 10 participants

中小企業政策セミナー

J-96-00108

- PURPOSE** The purpose of the course is to enable participants to devise better measures for the promotion of small business in their countries, by introducing Japanese small business policy.
- MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants. The main themes are: (1) background of the Japanese economy (2) history and status quo of public policy and programs towards small business-finance, management, technology, subcontracting system, grouping system, internationalization.
- QUALIFICATION OF APPLICANT** (1) university / college graduate, or equivalent (2) senior administrative officials engaged in the formulation of small business policy, with experience of at least five years (3) under 45 years of age
- TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Japan International Cooperation Center
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week. Writing and Reading proficiency in English is indispensable to make obligatory report on each topic.

PRODUCTION MANAGEMENT (THEORY AND PRACTICE ON WORK IMPROVEMENT)

Oct. 14, '96 - Mar. 1, '97, 8 participants

生産性向上技術

J-96-00340

- PURPOSE** The purpose of the training course is to provide participants with the opportunities to (1) understand technology and techniques accumulated in the Kitakyushu area through its experience and research activities, (2) acquire the knowledge on higher productivity through practical training and plant observations of Japanese factories, (3) introduce and utilize the acquired knowledge and techniques to solve their own problems of production.
- MAIN FEATURES OF CURRICULUM** The subjects covered in the course are: (1) productivity and management techniques (2) typical organization of Japanese companies (3) factors affecting productivity (4) production management (5) value engineering (6) industrial engineering (7) work improvement (8) plant maintenance and total productive maintenance (9) single arrangement and "Poka-Yoke" (prevention of simple mistakes) (10) two-day improvement activity (11) quality control and statistical methods (12) QC circle activity (13) engineering economy (14) SE/OR (15) computer utilization in enterprise (16) CAD system (17) productivity improvement activity (18) basic production planning (19) employee education (20) QC New-7 Tools
- QUALIFICATION OF APPLICANT** (1) have more than 5 years' occupational experience in the field of production management (2) university graduate in engineering or equivalent (3) 40 years of age or less
- TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kitakyushu International Techno-cooperative Association
- REMARKS** A compulsory 25 hour Japanese language course will be conducted prior to the technical training.

PRODUCTIVITY MANAGEMENT

Apr. 8, '96 - June 9, '96, 10 participants

実践的総合生産性向上

J-96-00355

- 1. PURPOSE** The course is designed to update the administrative and managerial skills of personnel who are currently engaged in the administration or management of production, or related job or position.
- 2. MAIN FEATURES OF CURRICULUM** The highlight of the program is the in-plant practice for productivity improvement. Main topics by lecture: Production control and system, Improvement of total productivity, Implementation of low cost automation, Basic design of training for human resource development. Main practice: Productivity improvement practice in plant.
- 3. QUALIFICATION OF APPLICANT** (1) official presently in charge of plant management in manufacturing sector in central or provincial governments or in local bodies, with 5 or more years of experience in this field (2) university graduate or equivalent (3) over 30 and under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Japan Productivity Center (JPC)

SEMINAR ON SHIPBUILDING MANAGEMENT

Sep. 17, '96 - Nov. 22, '96, 7 participants

造船経営管理セミナー

J-96-00249

- 1. PURPOSE** The purpose of the seminar is to provide the participants with the opportunity to get workable, basic know-how of shipbuilding management, such as the outline of shipbuilding, the control of business activities, and production control in the shipyards, and to exchange information on how to cope with the development of the international conventions, thus contributing to the development of shipbuilding industries.
- 2. MAIN FEATURES OF CURRICULUM** In this seminar, the emphasis is put on introduction of Japanese shipbuilding industries and basic know-how of shipbuilding management through lectures and observation. The following are the major subjects to be covered in the seminar: (1) outline of shipbuilding industries and management in Japan (2) shipyard management and control of business activities (3) production control in shipyard management (4) introduction and recent trends of IMO convention (5) international cooperation
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in the field of shipbuilding management in government, public, or private organizations and have more than eight years of occupational experience in this field (2) university graduate or equivalent (3) not less than 35 and not more than 50 years of age
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Maritime Technology and Safety Bureau, Ministry of Transport (3) Overseas Shipbuilding Cooperation Centre (OSCC)

FOREIGN TRADE DEVELOPMENT FOR LEADERS

Aug. 26, '96 - Dec. 4, '96, 10 participants

貿易促進のための指導者

J-96-00208

- 1. PURPOSE** The purpose of the course is to provide leading officers presently in charge of foreign trade administration with practical knowledge of Japanese market through lectures and observations (field trips). It also provides the knowledge of Japanese historical experience in achieving economic development through trade promotion, as well as Japanese trade practice, thus assisting the participants to figure out effective measures for trade development to Japan.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of comprehensive knowledge on the following subjects, through lectures and field trips: (1) theoretical analysis of economic development and trade (2) historical analysis of Japanese experience of economic development (3) role of small and medium scale trading companies (4) multilateral analysis of Japanese market (5) business practice of trade transaction (a) Japanese distribution system (b) consumer behavior (6) trade promotion to Japanese market (7) case study on trade business (a) field trip
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or equivalent with occupational experience of more than three years (2) leading officer in administration of foreign trade (3) no less than 26, and not more than 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Hyogo International Centre (HIC), JICA (2) Kobe International Association (3) Kobe Chamber of Commerce and Industries (4) Kobe University (5) Kobe Customs House, Ministry of Finance
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for 2 weeks (50 hours).

INTELLECTUAL PROPERTY RIGHTS IN TECHNOLOGY TRANSFERS

May 6, '96 - Aug. 3, '96, 10 participants

国際知的財産権

J-96-00486

- 1. PURPOSE** This course is intended for specialists who are in a leading post to prepare and promote policies and measures for technology transfer and for the protection of intellectual properties. The participants will be trained in highly specialized matters such as legal practices regarding technology transfer and legislation regarding intellectual properties in Japan. The course aims to not only help foster specialists in technology trade but also to develop and promote legal systems for the protection of intellectual properties.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of lectures, tutorial studies and discussions including final Symposium. The main themes are: (1) outline of Japanese law (2) intellectual property right system in Japan (3) legal practices concerning technology transfer (4) various systems regarding technology trade (5) tutorial instruction (6) case study (7) symposium on intellectual property rights (a) Participants are requested to report on the current issue regarding the trend of intellectual property rights in their countries
- 3. QUALIFICATION OF APPLICANT** (1) senior administrators in charge of legislation of intellectual property rights or in charge of policy making, or in the position of making technical suggestion in their fields with practical experience of at least 3 years in this field. (2) under 45 years of age
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Kyoto Comparative Law Center
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

SEMINAR ON COMPREHENSIVE TOURISM II

May 21, '96 - July 14, '96, 16 participants

総合観光セミナーII

J-96-00070

- PURPOSE** The purpose of this seminar is to furnish participants with the skills and know-how to promote tourism in a sustainable manner in each of their countries.
- MAIN FEATURES OF CURRICULUM** In this seminar, following major subjects will be covered through lectures, discussion, presentation and observation. (1) Japanese tourism policy and related industries (2) concrete development methods for marketing and advertising for international tourism promotion (3) concrete development methods for marketing and advertising for domestic tourism promotion
- QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) presently engaged in tourism promotion activities in the governmental or other public tourism organizations with the occupational experience of more than three years (3) under 40 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Department of Tourism, Transport Policy Bureau, Ministry of Transport (3) International Tourism Development Institute of Japan (ITDIJ)

JAPANESE LANGUAGE FOR TECHNICAL COOPERATION

Sep. 26, '96 - Mar. 30, '97, 11 participants

技術協力のための日本語

J-96-00421

- PURPOSE** The purpose of this course is to provide Japanese language training for those who are directly or indirectly engaged in technical cooperation projects of JICA, so that they will (1) facilitate better communication with JICA experts in Japanese, (2) promote smoother and more effective implementation of JICA cooperation projects, (3) understand Japanese people, society and culture.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on lectures, practice and field trips. The main themes are: (1) writing practice of Hiragana, Katakana, and Kanji (Chinese Character) (2) pronunciation (3) basic sentence structure (4) conversation (5) reading and composition skills.
- QUALIFICATION OF APPLICANT** (1) presently engaged directly or indirectly in JICA's cooperation programmes (2) university graduate or equivalent (3) under 35 years of age
- TRAINING INSTITUTIONS** Okinawa International Centre (OIC), JICA

JAPANESE LANGUAGE FOR TECHNICAL COOPERATION (INTERMEDIATE AND ADVANCED LEVEL)

May 9, '96 - Aug. 5, '97, 5 participants

技術協力のための日本語(中上級)

J-96-00422

- PURPOSE** The purpose of this course is to provide Japanese language training for those who are directly or indirectly engaged in technical cooperation projects of JICA and also be able to speak basic Japanese, so that they will (1) facilitate better communication with JICA experts in Japanese, (2) promote smoother and more effective implementation of JICA cooperation projects (3) understand Japanese people, society and culture.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on lectures, practice and field trips. The main themes are: (1) writing practice of Kanji (Chinese Character) (2) pronunciation (3) advanced sentence structure (4) conversation (5) reading and composition skills, for persons who have studied introductory Japanese.
- QUALIFICATION OF APPLICANT** (1) presently engaged directly or indirectly in JICA's cooperation programmes (2) have studied introductory Japanese (3) university graduate or equivalent (4) under 40 years of age
- TRAINING INSTITUTIONS** Okinawa International Centre (OIC), JICA

PRODUCTION OF AUDIO VISUAL COMMUNICATIONS MEDIA (A)

May 9, '96 - Aug. 29, '96, 9 participants

視聴覚メディア制作(A)

J-96-00437

- PURPOSE** The purpose of this course are (1) to introduce basic theory and technique of audiovisual technology in human communication to the participants who are working in the area of production and utilization of the audiovisual media (2) to enhance the effective application of audiovisual media in human communication by the participants' organizations
- MAIN FEATURES OF CURRICULUM** The emphasis of this course is put on the basic production skills of audiovisual media. Main subjects covered in the course are: (1) basic theories in audiovisual communications media (2) basic video (3) desk top publishing (4) slide (5) other presentation media (6) final production
- QUALIFICATION OF APPLICANT** (1) person who plays a role in planning, production and utilization of audiovisual media with two to four years of experience. This course is not designed for those who are working in television stations. (2) university graduate or equivalent (3) under 35 years of age
- TRAINING INSTITUTIONS** Okinawa International Centre (OIC), JICA

PRODUCTION OF AUDIO VISUAL COMMUNICATIONS MEDIA (B)

Jan. 9, '97 - Apr. 24, '97, 9 participants

視聴覚メディア制作(B)

J-96-00491

- 1. PURPOSE** The purposes of this course are (1) to introduce basic theory and technique of audiovisual technology in human communication to the participants who are working in the area of production and utilization of the audiovisual media (2) to enhance the effective application of audiovisual media in human communication by the participants' organizations
- 2. MAIN FEATURES OF CURRICULUM** The emphasis of this course is put on the basic production skills of audiovisual media. Main subjects covered in the course are: (1) basic theories in audiovisual communications media (2) basic video (3) desk top publishing (4) slide (5) other presentation media (6) final production
- 3. QUALIFICATION OF APPLICANT** (1) person who plays a role in planning, production and utilization of audiovisual media with two to four years of experience. This course is not designed for those who are working in television stations. (2) university graduate or equivalent (3) under 35 years of age
- 4. TRAINING INSTITUTIONS** Okinawa International Centre (OIC), JICA

VIDEO PRODUCTION (FOR INSTRUCTIONAL, TRAINING AND PROMOTIONAL ACTIVITIES)

Aug. 22, '96 - Dec. 19, '96, 9 participants

ビデオ制作

J-96-00473

- 1. PURPOSE** The course is designed to help participants acquire fundamental knowledge and skills production and utilization of video media for educational training and its spread in participating countries.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on video program production. The main themes are: (1) basic theory of audiovisual communication (2) case study of utilization of video media (3) technique of video materials and production (4) exercises (5) observation (6) final production
- 3. QUALIFICATION OF APPLICANT** (1) has been engaged in planning, production and utilization of video media in public institutions. This course is not designed for those who are working in television stations. (2) has 2 to 5 years experience (3) under 35 years of age (4) university graduate or equivalent
- 4. TRAINING INSTITUTIONS** Okinawa International Centre (OIC), JICA

PRACTICE OF SCIENCE EDUCATION

Sep. 18, '96 - Nov. 5, '96, 6 participants

科学教育実技

J-96-00460

- 1. PURPOSE** The course is designed to enable the participants, who teach science in junior high and high schools or who belong to education research institutes, universities, and science education centers, to understand the essentials of the latest methods for teaching science. After completion of this course, participants will be able to use simple science equipment according to the basic principles of science education and formulate suitable test questions for science activities.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on report presentation, lectures which introduce Japanese experience and basic theories of science education, and workshop practice of science education. It mainly covers: (1) basic principles of science (2) practice concerning physics, chemistry, biology, earth science and educational technology
- 3. QUALIFICATION OF APPLICANT** (1) presently a secondary school science teacher or researcher on science education in an education research institute/university/college. Administrative officers are not qualified for this programme. (2) university graduate or equivalent (3) be not more than 35 years of age.
- 4. TRAINING INSTITUTIONS** (1) Chugoku Branch Office, JICA (2) Faculty of School Education, Hiroshima University (3) Faculty of Education, Hiroshima University (4) Education Center, Hiroshima Prefecture (5) Education Center, Hiroshima City

SEMINAR ON TRAINING SPECIALIST FOR SUPERVISORS II (FOCUSED ON IN-HOUSE TRAINING)

Jan. 20, '97 - Mar. 16, '97, 10 participants

監督者訓練専門家セミナーII

J-96-00016

- 1. PURPOSE** The seminar is designed to contribute to the development of the ability of key personnel of in-house training engaged in planning and conducting the training for supervisors, foremen and workers of manufacturing industries in participating countries, by introducing to the participants, Japanese system of the training for supervisors and by providing them with necessary knowledge and information concerned.
- 2. MAIN FEATURES OF CURRICULUM** In this seminar, the necessary emphasis is placed upon the practical knowledge of the training for supervisors, Japanese in-plant training system, the training methods of the in-plant training corresponding to the technological innovations, and the ability to pick up the idea to develop the training for supervisors, suited to the training need of the participating countries through lectures and discussions on the outline of human resources development in Japan and the training for supervisors in Japan, and through the observation tours of the related facilities and organizations.
- 3. QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) training specialist concerned with planning and conducting the in-house training designed for foremen and other first line supervisors, etc. (3) more than one year's working experience in the said position with the expectation to work in the same position in the future (4) between 30 and 45 years of age
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Human Resources Development Bureau, Ministry of Labour

SEMINAR ON TRAINING MANAGEMENT IN VOCATIONAL TRAINING INSTITUTIONS

June 17, '96 - Aug. 11, '96, 10 participants

職業訓練管理セミナー

J-96-00345

- 1. PURPOSE** The purpose of this seminar is to introduce to the participants the current situation of the human resources development administration, and the management of vocational training institutions in Japan, and to provide them with an opportunity for making a comparative study on management and programming of vocational training between Japan and their countries as well as among the participating countries, and thereby to contribute to the improvement of vocational training in each country.
- 2. MAIN FEATURES OF CURRICULUM** To achieve the above purpose, the following major subjects have been carefully selected, so that the participants will acquire the understanding necessary to apply and/or to make recommendations for the improvement of vocational training institutions in their countries. (1) the economic, social and historical background and the present situation as well as the human resources development administration in Japan (2) the management of vocational training institutions and facilities, such as human management, operation management and physical management (3) programming of vocational training, such as training needs and development of training courses (4) the management of vocational training institutions and facilities in the participating countries
- 3. QUALIFICATION OF APPLICANT** (1) headship being presently engaged in management of a vocational training institution, with the expectation to continue to work in the same field (2) between 30 and 50 years of age
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Human Resources Development Bureau, Ministry of Labour

ADVANCED TECHNOLOGY OF AUTOMATIC CONTROLS FOR ROBOTS (FOR VOCATIONAL TRAINING INSTRUCTORS)

Aug. 19, '96 - Feb. 16, '97, 5 participants

ハイテクロボット制御(職業訓練指導員) J-96-00313

- A: DYNAMIC BEHAVIOR ON LARGE SCALED FLOATING OFFSHORE STRUCTURE SUBJECTED TO SEA WAVES AND SEAQUAKES**
B: PRODUCT DESIGN
- 1. PURPOSE** The purpose of this course is to provide senior instructors of vocational training institutes with an opportunity to acquire up-to-date technology and knowledge in the field of controls for robot.
 - 2. MAIN FEATURES OF CURRICULUM** This course covers the following topics. (1) sensor devices (2) measuring and control (3) small motors and their control technology (4) speed control induction motor (5) sequence control technique (6) computer application technology (7) power electronics
 - 3. QUALIFICATION OF APPLICANT** (1) university graduate or equivalent (2) engaged in vocational training/education (3) more than 3 year experience in the said field, and not more than 40 years of age
 - 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Polytechnic University, Employment Promotion Corporation
 - 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks (100 hours).

SEMINAR ON HUMAN RESOURCES DEVELOPMENT ADMINISTRATION (VOCATIONAL TRAINING ADMINISTRATION)

Nov. 18, '96 - Dec. 22, '96, 15 participants

職業能力開発行政セミナー

J-96-00346

- 1. PURPOSE** The purpose of the seminar is to introduce to the participants the current situation of human resources development administration in Japan specifically placing emphasis on vocational training, and to provide them an opportunity of making a comparative study on the said field between Japan and the participating countries as well as among their countries, and thereby to contribute to the improvement of the human resources development administration in the respective countries.
- 2. MAIN FEATURES OF CURRICULUM** To achieve the above purpose, the following major subjects have been carefully selected, so that the participants will acquire the understanding necessary to apply and/or to make recommendations for the improvement of human resources administration in their countries. (1) the economic, social and historical background and the present situation concerning the human resources development administration in Japan (2) establishment of training policy and strategy for human resources development administration in Japan (3) general methods of management and operation of various types of vocational training institutions in Japan (4) present situation of human resources development in enterprises (5) human resources development administration among the participating countries
- 3. QUALIFICATION OF APPLICANT** (1) at least a director of the department in the central government who is presently engaged in the human resources development administration (2) between 35 and 50 years of age
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Human Resources Development Bureau, Ministry of Labour

VOCATIONAL TRAINING INSTRUCTORS (INFORMATION AND COMPUTER ENGINEERING)

Apr. 8, '96 - Dec. 22, '96, 10 participants

職業訓練指導員(情報工学)

J-96-00504

- 1. PURPOSE** The course aims to provide participants engaged in vocational/technical profession with requisite technology and information available in Japan, in order to share the outcomes of the training to enhance technical standard and productivity in their respective countries.
- 2. MAIN FEATURES OF CURRICULUM** This course, comprised of lectures and practices, mainly covers: (1) basics of software (2) basics of hardware (3) software design (4) information processing engineering (5) logical circuit
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in vocational training as an instructor of information and computer engineering at a vocational training center, college, university, or research institute (2) university graduates with at least three years of occupational experience in this field (3) not less than 25 and not more than 35 years of age (4) not be serving in the military
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Polytechnic University, Employment Promotion Corporation
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for five weeks (125 hours).

**VOCATIONAL TRAINING INSTRUCTORS
(ARCHITECTURAL ENGINEERING)**

Apr. 8, '96 - Dec. 22, '96, 5 participants

職業訓練指導員(建築工学)

J-96-00377

- 1. PURPOSE** The course aims to provide participants engaged in vocational/technical profession with requisite technology and information available in Japan, so that they could share the outcomes of the training to enhance technical standard and productivity in their respective countries.
- 2. MAIN FEATURES OF CURRICULUM** This course, comprised of lectures and practices, mainly covers: (1) production system of construction (2) spatial structures (3) building materials (4) seismic engineering (5) pre-fabricated construction system
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in vocational training as an instructor of architectural engineering or related field at a vocational training center, college, university, or research institute (2) university graduate with at least three years of occupational experience in this field (3) not less than 25 and not more than 35 years of age
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Polytechnic University, Employment Promotion Corporation
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for five weeks (125 hours).

**VOCATIONAL TRAINING INSTRUCTORS
(ELECTRONIC ENGINEERING) II**

Apr. 8, '96 - Dec. 22, '96, 11 participants

職業訓練指導員(電子工学)II

J-96-00378

- 1. PURPOSE** The course aims to provide participants engaged in vocational/technical profession with requisite technology and information available in Japan, so that they could share the outcomes of the training to enhance technical standard and productivity in their respective countries.
- 2. MAIN FEATURES OF CURRICULUM** This course, comprised of lectures and practices, mainly covers: (1) solid-state electronic engineering (2) control engineering (3) optical electronic (4) electro magnetic wave propagation (5) physics of semi-conductor devices
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in vocational training as an instructor of electronic engineering or related field at a vocational training center, college, university, or research institute (2) university graduate (except doctorate degree holder) with at least three years of occupational experience in this field (3) not less than 25 and not more than 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Polytechnic University, Employment Promotion Corporation
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for five weeks (125 hours).

**VOCATIONAL TRAINING INSTRUCTORS
(MECHANICAL ENGINEERING FOR INDUSTRY AUTOMOBILE/WELDING/AIRCONDITIONING)**

Apr. 8, '96 - Dec. 22, '96, 7 participants

職業訓練指導員(産業機械工学)

J-96-00434

- 1. PURPOSE** The course aims to provide participants engaged in vocational/technical profession with requisite technology and information available in Japan, so that they could share the outcomes of the training to enhance technical standard and productivity in their respective countries.
- 2. MAIN FEATURES OF CURRICULUM** This course, comprised of lectures and practices, mainly covers: (1) basic concepts of material for engineering (2) selection, operation and maintenance of pumps (3) automotive mechanism (4) hydraulics (5) stress measurement (6) internal combustion engines
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in vocational training as an instructor of mechanical engineering for industry at a vocational training center, college, university, or research institute (2) university or junior college graduates with at least three years of occupational experience in this field (3) not less than 25 and not more than 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Polytechnic University, Employment Promotion Corporation
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for five weeks (125 hours).

**VOCATIONAL TRAINING INSTRUCTORS
(MECHANICAL ENGINEERING FOR PRODUCTION)**

Apr. 8, '96 - Dec. 22, '96, 8 participants

職業訓練指導員(生産機械工学)

J-96-00435

- 1. PURPOSE** The course aims to provide participants engaged in vocational/technical profession with requisite technology and information available in Japan, so that they could share the outcomes of the training to enhance technical standard and productivity in their respective countries.
- 2. MAIN FEATURES OF CURRICULUM** This course, comprised of lectures and practices, mainly covers: (1) machining technology (2) precision measurement (3) deformation on processing (4) numerical control equipment (5) material testing
- 3. QUALIFICATION OF APPLICANT** (1) presently engaged in vocational training as an instructor of mechanical engineering for production or related field at a vocational training center, college, university, or research institute (2) university graduates (except doctor degree holders) with at least three years of occupational experience in this field (3) not less than 25 and not more than 35 years of age
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Polytechnic University, Employment Promotion Corporation
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for five weeks (125 hours).

**VOCATIONAL TRAINING INSTRUCTORS
(WOODWORK ENGINEERING AND DESIGN)**

Apr. 8, '96 - Dec. 22, '96, 5 participants

職業訓練指導員(造形工学)

J-96-00436

- PURPOSE** The course aims to provide participants engaged in vocational/technical profession with requisite technology and information available in Japan, so that they could share the outcomes of the training to enhance technical standard and productivity in their respective countries.
- MAIN FEATURES OF CURRICULUM** This course, comprised of lectures and practices, mainly covers: (1) properties of wood (2) woodworking system in production (3) new artificial materials (4) practice on CAD (5) digital image processing
- QUALIFICATION OF APPLICANT** (1) presently engaged in vocational training as an instructor of woodwork engineering at a vocational training center, college, university, or research institute (2) not less than 25 and not more than 40 years of age
- TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Polytechnic University, Employment Promotion Corporation
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for five weeks (125 hours).

**REMOTE SENSING TECHNOLOGY
(FUNDAMENTAL)**

May 7, '96 - July 12, '96, 8 participants

リモートセンシング技術(基礎)

J-96-00219

- PURPOSE** The purpose of the course is to transfer fundamental knowledge and technology on satellite remote sensing, mainly focused on digital analysis, to the researchers and engineers from developing countries, through lectures, practices, field trips, and so on.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on workshop using computers. The following are the major subjects to be covered in the course. (1) basic theory (2) sensor satellite (3) image processing (4) application (5) ground truth (6) workshop: digital image analysis, geometric correction and GIS, personal computer processing, personal computer system and programming
- QUALIFICATION OF APPLICANT** (1) university graduate, or equivalent with fundamental knowledge of physics and mathematics (2) researcher or engineer in remote sensing application fields, such as country planning, agriculture, forest management and mapping (3) under 35 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Remote Sensing Technology Center of Japan

ENZYME TECHNOLOGY

Apr. 8, '96 - Aug. 11, '96, 5 participants

酵素工学

J-96-00248

- PURPOSE** The purpose of the course is to introduce to participants knowledge and techniques required for microbial enzyme technology such as cultivation of microorganisms, production and purification of enzymes and properties and action of enzymes, through lectures, experiments and observations. (Note that the course is focused on introducing basic knowledge and techniques of microbial enzyme technology, and is not intended to provide participants with knowledge and techniques of food processing resulting from application.)
- MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants and individual research work at laboratory. Each participant is to take one of the following subjects for his/her individual research: (1) microbial conversion of aromatic compounds (2) study on levan-degrading enzyme (3) synthesis of glycolipids by enzymic action (4) study on digestion of raw starch with amylase (5) study on the applied uses of micro-algae
- QUALIFICATION OF APPLICANT** (1) master's degree, or bachelor's degree with as much academic knowledge and technical experience as the former, and major in biochemistry, fermentation technology or applied microbiology (2) between 25 and 35 years of age (3) more than three years experience in fermentation technology or enzyme technology
- TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Osaka Municipal Technical Research Institute (OMTRI)
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks.

BIOTECHNOLOGY

Mar. 24, '97 - Aug. 1, '97, 8 participants

バイオテクノロジー

J-96-00389

- PURPOSE** The purpose of the course is to provide graduates who majored in biotechnology and bioscience, mainly in the fields utilizing higher plants and microorganisms, in a university or the equivalents with fundamental and practical knowledge required for the effective application of biotechnology.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of fundamental and practical knowledge on the following subjects through lecture, practice and study tours. (1) lecture: general principles of biotechnology utilizing microorganisms, biotechnology utilizing plants, etc. (2) laboratory works: plant and cell engineering application of plant tissue culture techniques etc. (3) observation tours: observation of institutes concerned with crop genes application of microbial activities etc.
- QUALIFICATION OF APPLICANT** (1) presently engaged in research work and have more than four years of occupational experience in this field (2) university graduate or equivalent (3) not less than 26 and not more than 35 years of age
- TRAINING INSTITUTIONS** (1) Hyogo International Centre (HIC), JICA (2) Faculty of Agriculture, Kobe University
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for several days.

TUBERCULOSIS CONTROL II

June 17, '96 - Oct. 20, '96, 18 participants

結核対策II

J-96-00030

- PURPOSE** The purpose of the course is to give training to key organizers of the national tuberculosis programme in the modern methods of tuberculosis control, in order to prepare them for developing or promoting the programme in a rational, realistic and efficient manner under their own country's socio-economic conditions.
- MAIN FEATURES OF CURRICULUM** Through the intensive lectures with discussions, practical training, seminars, workshops, field observations, etc. in this training course, it is so designed that the participants will acquire: (1) the abilities in formulating, implementing and evaluating a national tuberculosis programme based on the cost-benefit relationship (2) an epidemiological view of tuberculosis control (3) an understanding of the way to protect healthy people from tuberculosis (4) an understanding of how to cut the chain of transmission of tuberculosis
- QUALIFICATION OF APPLICANT** (1) a medical officer who is engaged in the national tuberculosis control programme, preferably having, or going to have, a leading role in the programme, excluding those who are engaged in pure clinical work (2) not more than 45 and not less than 30 years of age
- TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association
- REMARKS** The participants will be required to take examinations for the qualification of Diploma of Tuberculosis Control and Epidemiology from the Research Institute of Tuberculosis when the training is completed. The participants should bring updated information on the health status and tuberculosis activities, manual of national tuberculosis control programme, recording form of tuberculosis patients, etc. of their countries.

EARLY GASTRIC CANCER DETECTION AND RELATED DIGESTIVE TUMORS II

Jan. 13, '97 - Mar. 13, '97, 16 participants

早期胃癌診断II

J-96-00144

- PURPOSE** The purpose of this course is to introduce participants to the various characteristics of cancers and to the fundamental and the latest knowledge and techniques concerning the detection of early gastric cancer, ulcer, polyp and related digestive tumors. It also aims to enable participants to become competent enough to assume responsible duties after returning to their home countries, to contribute to the early detection of gastric cancer and related digestive tumors and finally, to improve health standards in their respective countries.
- MAIN FEATURES OF CURRICULUM** This course is focused on the introduction of fundamental and latest knowledge in Japan by means of lectures, hospital training on each participant's speciality (either Radiology, Endoscopy, or Histopathology), and case studies (practice reading). The major subjects to be treated in the lectures are: (1) general radiology (general information, X-ray studies, diagnosis of elevated/depressed lesions, radio diagnosis of minute lesions, screening and epidemiological studies, etc.) (2) endoscopy (general information, gastric biopsy, diagnosis and treatment of esophageal diseases, magnification endoscopy, duodenoscopy, diagnosis of cancer of colon, etc.) (3) histopathology (method of histopathological examination, histogenesis of gastric cancer) (4) chemotherapy (5) echography (6) diagnosis of cancer of liver, pancreas and gallbladder
- QUALIFICATION OF APPLICANT** (1) graduate of a medical college or the medical department of a university, who majored in gastroenterology with more than seven years of practical experience in diagnosing cancer, gastritis, ulcer and polyp of the stomach and its adjacent region in the field of radiology, endoscopy, biopsy or pathology (2) able to give a report on respective fields which may include the applicant's prior scientific presentations, studies abroad, or other pertinent information (3) able to assume such responsible duties as chief instructor, professor or specialist in the aforementioned fields after returning to their respective countries (4) under 45 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Foundation for Detection of Early Gastric Carcinoma

CLINICAL ONCOLOGY II

Aug. 27, '96 - Nov. 3, '96, 10 participants

がん対策II

J-96-00068

- PURPOSE** The purpose of this training course is to provide the participants with an opportunity to acquire the latest knowledge and technique of cancer diagnosis and treatment established in Japan.
- MAIN FEATURES OF CURRICULUM** This training course mainly consists of two parts, i.e., lecture session which all the participants are expected to attend, and individual programme to be conducted in accordance with the participants' respective specialities. Through the training programme, the participants are expected to: (1) create a better understanding on various aspects of cancer diagnosis and treatment, and (2) acquire the latest knowledge and technique in their respective field
- QUALIFICATION OF APPLICANT** (1) licensed physician authorized by their governments and specialized in cancer diagnosis and its treatment (2) strictly less than 35 years of age and have clinical experience of more than three years in cancer diagnosis and its treatment
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) National Cancer Center (NCC)

SEMINAR ON BLOOD TRANSMITTED DISEASES (SPECIAL REFERENCE TO AIDS, ATL, AND HEPATITIS)

July 8, '96 - Aug. 19, '96, 15 participants

血液由来感染症

J-96-00358

- PURPOSE** The purpose of the course is to provide middle level managers of health services with information on: (1) natural history of infectious diseases which are transmitted from person to person through blood namely, acquired immunodeficiency syndrome (AIDS), adult T-cell leukemia (ATL) and hepatitis B (HB) & C (HC) (2) how to establish national or regional policy on control of the above mentioned diseases and how to supervise or guide the implementation of control measures in respective countries
- MAIN FEATURES OF CURRICULUM** With regard to diseases such as AIDS, ATL, and HB & HC, the course is conducted in the form of lectures, discussions, films, practical work and field trips. Participants are expected to: (1) study natural histories of the diseases with particular emphasis on epidemiology and surveillance methodology. (2) understand diagnosis, pathology, clinical features and treatment of the diseases. (3) develop their capabilities for performing the various practical procedures related to clinical diagnosis of the diseases. (4) review, discuss and contemplate the possible control programmes of the diseases in their respective countries.
- QUALIFICATION OF APPLICANT** (1) medical doctor and, at the same time, manager of middle level or higher in the office or in the field (2) engaged in the work which is related to this training course (3) 40 years of age or less
- TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Agency for Cooperation in International Health (3) Kumamoto National Hospital

PATIENT CARE FOR INFECTIOUS DISEASES

Jan. 7, '97 - Mar. 23, '97, 5 participants

感染症臨床研修

J-96-00423

- PURPOSE** The purpose of this training course is to provide the participants with better knowledge and skills to control infectious diseases through discussing (1) basic health policy strategies from the national to the hospital level and (2) specific methods of diagnosis, examination and treatment
- MAIN FEATURES OF CURRICULUM** This course will be conducted in the form of individual training, lectures and visit to other facilities. The participants will have an individual programme at an appropriate division in accordance with their respective specialities for a certain period. Through the training programme, the participants are expected to: (1) understand basic strategies against infectious diseases (2) advance knowledge on infectious diseases (3) be able to diagnose infectious disease correctly (4) be able to examine patients with infectious diseases adequately (5) be able to treat patients with infectious diseases appropriately (6) be able to perform disinfection and aseptic techniques (7) be able to apply the knowledge to medical practice after returning to their respective countries
- QUALIFICATION OF APPLICANT** (1) licensed physician authorized by his/her government, and have a clinical experience of more than five years (2) between 29 and 34 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) International Medical Center of Japan

MANAGEMENT AND TECHNOLOGY IN MICROBIOLOGICAL LABORATORY DIAGNOSIS

Oct. 28, '96 - Apr. 14, '97, 9 participants

感染症診断の技術と管理

J-96-00424

- PURPOSE** The purpose of this training course is to provide participants with knowledge and techniques required for the management of laboratory activities, and production, evaluation and quality control of agents and media in their laboratories.
- MAIN FEATURES OF CURRICULUM** In this course, emphasis is put on practical exercise in the laboratory. The subjects covered in the course are: (1) basic lectures (a) host-microbe interaction (b) quality control of biological products, especially of vaccines (c) pathogenic vibrios (d) serological diagnosis of toxic diseases (e) antimicrobial susceptibility testings-principle and practice (f) bacterial toxin (g) quality control of blood products (h) drug distribution system and quality control (i) Mechanism of drug resistance in bacteria (j) recent topics of viral infections (k) recent topics of bacterial infections (l) laboratory biosafety control (m) bacterial toxin and intestinal colonization (n) control of infectious diseases in developing countries (o) bacteriology (2) special lectures (a) surveillance of nosocomial infections (b) epidemiology and control of nosocomial pneumonia (c) nosocomial infection and laboratory (d) nosocomial infection and viral hepatitis (e) antimicrobial agents and MRSA
- QUALIFICATION OF APPLICANT** (1) medical doctor or specialist in pharmacology, agriculture, or biology, and at the same time, managers of middle level or above, in fields related to the course (2) 45 years of age or less
- TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Agency for Cooperation in International Health (3) Kumamoto Prefectural Institute of Public Health (4) Kumamoto Municipal Institute of Public Health (5) Chemo-Therapeutic Research Institute
- REMARKS** A compulsory 95 hour Japanese language course will be conducted prior to the technical training for 95 hours.

ADVANCED MICROBIAL DISEASES STUDY

Sep. 2, '96 - July 26, '97, 6 participants

上級微生物病研究

J-96-00393

- PURPOSE** The purpose of the course is to improve the competence of the participants who work at the frontline in microbial research in developing countries, and thus contributing to the development of human resources in this field in their countries.
- MAIN FEATURES OF CURRICULUM** This course consists of individual research work at laboratory. Each participant is to belong to one of the following departments for his/her individual research. (1) Department of Bacterial Infections (2) Department of Molecular Protozoology (3) Department of Bacterial Toxinology (4) Department of Viral Infections (5) Department of Virology (6) Department of Neurovirology (7) Department of Molecular Embryology (8) Department of Tumor Virology (9) Department of Molecular Microbiology (10) Department of Medical Genetics (11) Department of Immunoregulation (12) Department of Molecular Immunology (13) Department of Science for Laboratory Animal Experimentation
- QUALIFICATION OF APPLICANT** (1) be researchers on microbial diseases in national research institutes or universities with a degree of M. D. or a master's (or higher) degree or equivalent knowledge, or be ex-participants of the JICA Group Training Course in "Microbial Diseases Study". (2) under 40 years of age
- TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Research Institute for Microbial Diseases, Osaka University
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for four week.

PEDIATRICS AND PEDIATRIC SURGERY

Feb. 11, '97 - June 15, '97, 5 participants

小児専門医療

J-96-00360

- PURPOSE** The purpose of this training course is to provide the participants with an opportunity to deepen an understanding on medical and health care to neonates, infants, small children and adolescents as well as prevental health care for them and early detection of diseases, which covers acute and chronic diseases, neonatal diseases, congenital or genetic diseases, physical disabilities, psychosomatic diseases and development behaviour problems, and thus to contribute to further advancement of pediatrics and pediatric surgery in developing countries.
- MAIN FEATURES OF CURRICULUM** This training course mainly consists of two parts; introductory lectures attended by all participants and individual training (pediatric, pediatric surgery) to be conducted in accordance with the participants' specialities. Through the training programme, the participants are expected to have a better understanding on the following: (1) diagnosis and treatment as a physician specialized in pediatrics or pediatric surgery, and (2) recent medical and surgical techniques for child care
- QUALIFICATION OF APPLICANT** (1) licensed physician authorized by their governments, and have occupational experience of more than two years in pediatrics or pediatric surgery (2) under 35 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) National Children's Hospital

SEMINAR ON POLIO ERADICATION, ITS THEORY AND PRACTICE

Aug. 26, '96 - Sep. 30, '96, 7 participants

小児麻痺根絶計画の理論と実際

J-96-00425

- 1. PURPOSE** The purpose of this course is to provide middle level managers of the health services with information on: (1) analysis of the history of past polio eradication programmes and elements needed for the success of the programmes, (2) setting-up of practical eradication methodology and management of field programme based on aforementioned (1), (surveillance, diagnosis, vaccination, etc.), and (3) review of global eradication programmes, especially the programmes of WHO Western Pacific Region.
- 2. MAIN FEATURES OF CURRICULUM** In this seminar, the emphasis is put on report presentation of polio eradication plan in each participants' country through discussions, lectures and field survey practice. The subjects covered in the seminar are: (1) basic lectures (a) virology and epidemiology poliomyelitis (b) pathology poliomyelitis (c) clinical features of poliomyelitis (d) production of oral polio vaccine (e) maintenance of cold chain (f) laboratory diagnosis management specimens (g) laboratory diagnosis management of diagnostic technique and feedback to field (h) relationship between EPI and polio eradication efforts (2) special lectures (a) introduction to poliomyelitis eradication strategy (b) international health and medical cooperation (multi/bilateral/NGO) (3) programme management (4) case study (5) field action and field trips (6) practice laboratory diagnosis (7) group discussion and study (8) presentation and discussions of Country Report
- 3. QUALIFICATION OF APPLICANT** (1) medical doctor and at the same time, manager responsible for the national EPI and/or polio eradication programme or a person of equivalent position (2) 50 years of age or less
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Agency for Cooperation in International Health

CLINICAL DENTISTRY

Apr. 15, '96 - Aug. 21, '96, 11 participants

歯学

J-96-00426

- 1. PURPOSE** The purpose of the course is to provide participants with the knowledge and skills of modern dentistry from fundamental to advanced level. Based on knowledge obtained through the course, participants are expected to be able to organize and conduct various activities such as examination of patients, education and administration in the field of dental health in order to promote the dental health systems on the basis of long and short-term period according to the situation of respective countries.
- 2. MAIN FEATURES OF CURRICULUM** In this course, participants will acquire the theory and practical skills through the model-oriented exercise. Also extensive knowledge on the advanced theory and technology of modern dentistry will be introduced. It mainly covers: (1) advancement in basic dentistry (2) dental care delivery system and dental public health service in Japan (3) dental care for children and adolescents (4) dental caries (5) periodontal disease (6) crown bridge and denture (7) arthrosis (8) oral cancer (9) dentistry for special patient (10) dental materials and clinical practices in the up-to-date dental medicine
- 3. QUALIFICATION OF APPLICANT** (1) dentist with more than three years' professional or academic experience at academic institution, health administration or in practice (2) presently engaged or expected to be working on their return in this line (3) 40 years of age or less
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Faculty of Dentistry, Kyushu University
- 5. REMARKS** A compulsory 30 hour Japanese language course will be conducted prior to the technical training.

TECHNOLOGY FOR NEONATAL AND INFANTILE SCREENING

Jan. 6, '97 - Mar. 24, '97, 8 participants

新生児・乳児マススクリーニング検査技術 J-96-00492

- 1. PURPOSE** The course is designed to upgrade knowledge and technique of mass-screening in the field of infants screening for inherited disorders and related diseases.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on the technical exercises. It mainly deals with: (1) inborn errors of metabolism (2) congenital hypothyroidism (3) congenital adrenal hyperplasia (4) neuroblastoma
- 3. QUALIFICATION OF APPLICANT** (1) medical doctor or have a doctorate in medical science and also be planning to organize neonatal and infantile screening (2) university graduate or equivalent (3) over 25 and under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Hokkaido International Centre, Sapporo (HICS), JICA (2) Sapporo City Institute of Public Health

ADVANCED MEDICAL RADIOLOGICAL TECHNOLOGY

Sep. 2, '96 - Feb. 23, '97, 7 participants

医療放射線技術指導者

J-96-00511

- 1. PURPOSE** This course is set as an Advanced Course for "Medical Radiological Technology" (1973-1993) In view of present situation of medical radiological technology, the purpose of this course is to advance the radiological technology in developing nations. The program is designed to provide broad and practical knowledge on radiological technology and educational method for the leaders who can contribute to the implementation of the radiological technology.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of quality control, effective operation and maintenance of radiological equipment, educational method for new technology, and research for appropriate technology etc. (1) fundamental theories of radiological technology for 1 month (2) practical training at hospital for 3 months (3) discussions and case studies on appropriate technology for each country for 1 month
- 3. QUALIFICATION OF APPLICANT** The course offers to those who take leadership in the field of radiological technology (chief technologist, chief medical physicist, director of technological school, etc. or those who are expected to be leaders in the future (Deputy chief technologist, Senior technologist or the equivalent, medical physicist, instructor of school for technologist, etc.), and also applicants should be: (1) university/college graduate or equivalent (2) radiological technologist or medical physicist having diagnostic experiences of more than five years, or instructor having experiences of teaching at school for radiological technologist (3) under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) The School of Allied Health Sciences (Faculty of Medicine), Osaka University (3) Osaka University Hospital
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two week.

COUNTER-MEASURE FOR IMPROVEMENT OF INFANT MORTALITY RATE

Aug. 19, '96 - Sep. 30, '96, 8 participants

乳児死亡率改善対策

J-96-00519

- PURPOSE** The purpose of this course is to aim to have participants develop the managerial and planning skill toward the reduction of the infant mortality rate (IMR) in their own countries through (1) identifying the factors of reducing the IMR in the assigned areas (2) discussing with fellow participants on their observations (3) developing their own solution for the improvement for themselves.
- MAIN FEATURES OF CURRICULUM** The course is designed for the participants to review the policies and execution of work related to the IMR reducing factors through visiting hospitals, public health centre and policy making office and discussing among participants and/or with their staff. The following basic subjects are covered through lecturers (1) Japan's health policy (2) maternal health (3) child health (4) health staff service
- QUALIFICATION OF APPLICANT** (1) be medical doctor, paramedical or administrative staff of higher position who are responsible for national formation of maternity and child health strategy and its execution, level of high ranking manager or middle level manager (2) be fifty 50 years of age and less
- TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Kumamoto Prefectural Center for Health and Preventive Medicine
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for 25 hours.

TOTAL MEDICAL IMAGING AND RADIATION THERAPY TECHNOLOGY

Sep. 24, '96 - Jan. 27, '97, 15 participants

総合医用画像・放射線治療技術

J-96-00516

- PURPOSE** This programme aims to invite those who are presently engaged in medical technology practices, especially in the field of medical imaging information management and radiation therapy, to provide them through lectures, practice drills and observations, with knowledge, technology and skills for practical medical technology.
- MAIN FEATURES OF CURRICULUM** This course consists of basic common training for all participants and group work for which the participants will be divided into the following two groups. Group A: Medical imaging technology [analogue and digital image processing (computed radiology, magnetic resonance imaging, computed tomography, ultrasound, etc.) will be treated]. Group B: Medical imaging information management and radiation therapy technology management (archives and communication) of the medical imaging system, introduction to medicine, oncology and acquisition of radiotherapy technology will be treated.
- QUALIFICATION OF APPLICANT** (1) have experience of more than five years in their profession (2) be radiographer/radiological technologist who is presently engaged in practice of diagnostic radiology, magnetic resonance imaging and ultrasound examinations (Group A) and management of total medical imaging and radiotherapy (3) recommended by the President of the Association the applicants belong to and/or the President of the institution at which they work (4) under 40 years of age
- TRAINING INSTITUTIONS** (1) Nagoya International Training Centre (NITC), JICA (2) Japan International Medical Technology Foundation (3) Japan Association of Radiological Technologists Education Center (4) related institutes
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

CLINICAL LABORATORY TECHNOLOGY

Nov. 12, '96 - Feb. 16, '97, 15 participants

臨床検査技術

J-96-00521

- PURPOSE** This programme aims to invite those who are presently engaged in medical technology practices, especially in the field of clinical laboratory to provide them through lectures, practice drills and observations, with knowledge, technology skills for practical medical technology.
- MAIN FEATURES OF CURRICULUM** This course consists of basic common training for all participants and group work for which the participants will be divided into the following two groups. Group A: bacteria and parasite testing technology as a countermeasure against diarrhea caused by intestinal bacteria and parasite (Salmonella, Shigella, Yersinia, Vibrio Aeromonas, Plesimonas, Campylobacter, Clostridium, S. aureus, B. cereus, ETEC will be treated) Group B: clinical immunological technology (fundamentals and practical applications of clinical immunology).
- QUALIFICATION OF APPLICANT** (1) have experience of more than five years in their profession (2) presently engaged in practices of clinical laboratory (NOTE: not be medical doctors or nurses) (3) recommended by the President of the Association the applicants belong to and/or the President of the institution at which they work (4) under 40 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japan International Medical Technology Foundation (3) Japanese Association of Medical Technologists (4) related institutes

HOSPITAL ADMINISTRATION AND HEALTH SERVICES MANAGEMENT

Jan. 21, '97 - Mar. 1, '97, 7 participants

病院管理技術とヘルスサービスマネジメント J-96-00481

- PURPOSE** The purpose of this course is to introduce participants to the latest knowledge and technology in the field of health services management, laying emphasis on hospital administration, through lectures, group discussions, field visits and individual studies.
- MAIN FEATURES OF CURRICULUM** The following subjects will be covered in the course. (1) district/regional health facilities (a) role (b) planning (2) application of appropriate technology (3) health services (a) system (b) resource management (c) planning and evaluation (4) hospital management (5) hospital visit
- QUALIFICATION OF APPLICANT** (1) presently engaged in hospital administration at the top management level (e. g. director or deputy director of hospital) or government officer, (2) not more than 50 years of age (3) university graduates or equivalent responsible for district health care or hospital administration
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) National Institute of Health Services Management

FOOD MICROBIAL CONTROL

Jan. 13, '97 - May 30, '97, 6 participants

食品微生物検査技術

J-96-00361

- 1. PURPOSE** The course is designed to upgrade the technical skills of personnel who are currently engaged in food microbial control.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of comprehensive knowledge on the following subjects through lecture, practice and field trip. (1) lectures (1 week) (a) Japanese food sanitation law (b) microbial control (c) anaerobic bacteria (d) pathogenic bacteria (e) saprophytic bacteria (f) fungi (g) recent trend of regulation for marine and livestock products in Japan (2) practice (12 weeks) (a) basic techniques (i) staining of bacteria (gram stain etc.) (ii) preparation of culture medium (iii) viable count of bacteria (iv) viable count of coliform group in drinking water (v) viable count of fungi and yeast (vi) viable count of lactic acid bacteria (vii) viable count of anaerobic bacteria (b) procedures for the isolation and identification of pathogenic microbes related to food-poisoning (i) salmonella (ii) staphylococcus aureus (iii) pathogenic vibrios (*V. parahaemolyticus*, *cholerae*.) (iv) campylobacter (v) clostridium perfringens (vi) listeria monocytogenes (vii) fungi and yeast (3) observation of private and public facilities related to food microbial control
- 3. QUALIFICATION OF APPLICANT** (1) research or technical officer presently engaged in food microbial control (2) university graduate or equivalent with occupational experience of more than three years in the field of food microbial control (3) under 35 year of age
- 4. TRAINING INSTITUTIONS** (1) Hyogo International Centre (HIC), JICA (2) Kobe College of Pharmacy (3) Public Health Research Institute of Kobe City (4) Kobe Quarantine Station, Ministry of Health and Welfare
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for about several days.

MYCOTOXIN INSPECTION IN FOOD

Feb. 10, '97 - May 30, '97, 7 participants

輸出入食品マイコトキシン検査技術

J-96-00390

- 1. PURPOSE** The purpose of the course is to enable the participants to understand the basic knowledge and techniques for the control and management of mycotoxins. After this course, they are expected to be able to apply them in their respective countries.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of comprehensive knowledge on the following subjects through lecture, practice and field trip. (1) lectures (a) food sanitation law and food inspection (b) general view on mycotoxins (c) introduction to fungi (d) isolation and identification of fungi (e) *aspergillus flavus* contamination of groundnuts and maize (f) *fusarium* contamination of wheat and maize (g) sampling for mycotoxins (h) analysis of mycotoxins (i) control of mycotoxins (j) analysis of food preservatives (2) practices (a) method of the isolation and identification of mycotoxins-producing fungi (b) analysis of mycotoxins such as aflatoxins and *fusarium* mycotoxins (c) analysis of food preservatives (3) observation and field trips government and private food inspection organization, food processing factories
- 3. QUALIFICATION OF APPLICANT** (1) technical officer or inspector presently engaged in food inspection (2) university graduate or equivalent with practical experience of not less than three years in the field of food inspection (3) not more than 35 years of age
- 4. TRAINING INSTITUTIONS** (1) Hyogo International Centre (HIC), JICA (2) Public Health Research Institute of Kobe City
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for several days.

IMPORT AND EXPORT FOOD INSPECTION

Aug. 12, '96 - Dec. 4, '96, 6 participants

輸出入食品検査技術

J-96-00226

- 1. PURPOSE** The course is designed for brushing up the knowledge and technique of the middle-class personnel in the manner of in-service training.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on introduction of comprehensive knowledge on the following subjects through lecture, practice and field trip. (1) lectures (a) current trend of public health administration in the world (b) principle of food hygiene in international trade (c) food hygiene administration on national and community levels (d) government formalities for international food trade at entry and exit (e) hygienic criteria for food safety in international trade (f) function of public institute for food health (g) monitoring of imported food in domestic market (2) laboratory experiments (a) microbial examinations (b) physico-chemical and other examinations
- 3. QUALIFICATION OF APPLICANT** (1) a technical personnel of import and export food sanitation of inspection who are university graduates and/or those who have equivalent practical experiences of food hygiene services more than three years (2) not more than 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Hyogo International Center (HIC), JICA (2) Kobe Quarantine Station, Ministry of Health and Welfare (3) Kobe Center for Quality Control and Consumer Service, Ministry of Agriculture, Forestry and Fisheries
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for several days.

SEMINAR ON PARASITE CONTROL ADMINISTRATION FOR SENIOR OFFICERS

Jan. 21, '97 - Feb. 16, '97, 10 participants

寄生虫予防指導者セミナー

J-96-00241

- 1. PURPOSE** The purpose of this seminar is to provide the participants with an opportunity (1) to create a better understanding on tripartite activities in Japan for parasite control conducted by administrative authorities of the government, medical experts and citizens' community, (2) to broaden knowledge on Japanese method or technique and its effectiveness of parasite control programme which is considered as a step to integrated primary health care programme, and (3) to contribute to promoting public appreciation of parasite control programme and their voluntary participation in it in respective countries of the participants.
- 2. MAIN FEATURES OF CURRICULUM** The following major subjects will be covered in the seminar. (1) parasite control program and public health activities in Japan (a) relations between central prefectural and municipal governments/authorities (b) medical experts (c) community/voluntary institutions (2) parasitology (a) soil-transmitted helminths such as ascaris and hookworm (b) examination methods and techniques (c) deworming and treatment (d) training of medical personnels and volunteers (3) integrated parasite control program and community/family health activities
- 3. QUALIFICATION OF APPLICANT** (1) senior-level administrator or expert from government or private sector in charge of parasite control at national or local level (2) have medical or other related profession (3) under 55 years of age
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japan Association of Parasite Control

NURSING MANAGEMENT

May 9, '96 - Aug. 8, '96, 7 participants

看護管理

J-96-00255

- PURPOSE** The purpose of the course is to give promising nurses an opportunity to be well-equipped administrators who will be able to upgrade the quality of nursing services in their respective countries through the study of theory and observation on nursing management.
- MAIN FEATURES OF CURRICULUM** The following major subjects will be covered in the course: (1) health and medical situation in Japan (2) principles of management/administration (3) hospital management/administration (4) nursing management/administration
- QUALIFICATION OF APPLICANT** (1) have enrolled and completed either of the below-mentioned courses during the period specified, (a) JICA group training course "Clinical Nursing" (1984 - 1992) (b) JICA's group training course in Specialized Nursing; 1986 - 1992 (c) Advanced Nursing Study Course for Southeast Asian nurses, which the Ministry of Health and Welfare entrusts its operation to INFJ (1973 - 1992) (2) hold an administrative position in nursing of their countries at present, and have 1 - 5 years experience.
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) International Nursing Foundation of Japan (INFJ)
- REMARKS** This course is conducted every other year in principle. This year (in Japanese Fiscal Year 1996), it will be conducted.

SPECIALIZED NURSING

(not conducted in JFY 1996)

専門看護

- PURPOSE** The purpose of this training course is to enhance the participants' competency on selected fields through lectures and practice so as to contribute to improving nursing services and its standard of respective countries.
- MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants and individual practical study in the hospital in accordance with the speciality of each participant. Through the training programme, the participants are expected to be able to: (1) comprehend and state the causes, symptoms, pathophysiology of diseases and its treatment and nursing care, (2) pursue comprehensive patient's management in skillful manner, (3) understand and manipulate specific medical equipment and instruments, (4) state the significance, process and nursing intervention of related clinical examinations, (5) understand psychosocial aspects of patients and their families, and (6) understand the expanded role of nurses in the community.
- QUALIFICATION OF APPLICANT** (1) have completed a fundamental nursing education programme of three years or more (2) have more than five years experience in nursing and more than one year experience in the specialized field for which the applicant is to apply (3) under 35 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) International Nursing Foundation of Japan (INFJ)
- REMARKS** (1) A compulsory intensive Japanese language course will be conducted prior to the technical training for two months. (2) This course is not conducted in JFY 1996.

CLINICAL NURSING

Aug. 22, '96 - Feb. 24, '97, 5 participants

臨床看護実務

J-96-00341

- PURPOSE** The purpose of this course is to provide the opportunity for experienced clinical nurses for the improvement of skills and the enhancement of knowledge through exposure to the theory and practice of nursing care of Japan in an effort to develop clinical nurses of high caliber with leadership quality who would serve to improve the standard of clinical nursing in participating countries.
- MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all the participants and Subcourse subjects. The Subcourses to be chosen are: (1) emergency nursing/surgical nursing (2) maternal and child nursing (3) internal medicine nursing
- QUALIFICATION OF APPLICANT** (1) certified staff nurse with more than five years of nursing experience (head nurse and chief nurse are not applicable) (2) under 35 years of age
- TRAINING INSTITUTIONS** (1) Okinawa International Centre (OIC), JICA (2) Okinawa Prefectural Chubu Hospital
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two months (220 hours).

CARDIOVASCULAR DISEASES

Aug. 19, '96 - Dec. 5, '96, 7 participants

循環器病対策

J-96-00273

- PURPOSE** The purpose of this course is to help the specialists to improve their ability in the fields of cardiovascular and related diseases through discussions, observations and practices of laboratory examinations.
- MAIN FEATURES OF CURRICULUM** This course consists of individual and specialized training in a given department of the National Cardiovascular Center. Each participant is to choose one of the following departments: (1) department of medicine: cardiac division (2) department of medicine: cerebrovascular division (3) department of medicine: division of hypertension, renal division (4) department of medicine: division of arteriosclerosis and metabolism (5) department of cardiovascular surgery (6) department of cerebrovascular surgery (7) department of anesthesiology (8) department of pediatric cardiology (9) department of radiology (10) department of preventive medicine (11) department of pathology (12) department of perinatology
- QUALIFICATION OF APPLICANT** (1) licenced physician and surgeon authorized by their government (2) occupational experience of at least two years in diagnosis and treatment of cardiovascular diseases (for the applicants who wish to specialize in Perinatology, the required duration of occupational experience is minimized; experience of less than two years is enough for application), (3) under 35 years of age
- TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) National Cardiovascular Centre (NCVC)
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks.

SEMINAR ON NATIONAL HEALTH ADMINISTRATION

May 20, '96 - June 9, '96, 14 participants

衛生行政セミナー

J-96-00213

- PURPOSE** This seminar is designed to introduce Japan's overall hygiene administration in the past and to contribute to the progress of health medical practice administration of the participating countries by focusing on current issues and through the exchange of opinions.
- MAIN FEATURES OF CURRICULUM** Most part of the program is allocated to discussions on the following themes; (1) health policy and planning (2) health resources development and management (3) community health (4) infectious diseases control (5) environmental health and hygiene (6) maternal and child health
- QUALIFICATION OF APPLICANT** (1) medically qualified top ranking administrator of the national government in charge of health administration, or the equivalents in public institutions (2) be in a position to participate in planning and deciding the national health administration policy
- TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) Ministry of Health and Welfare (MHW) (3) International Medical Foundation of Japan (IMFJ)

PUBLIC HEALTH AND ENVIRONMENTAL POLLUTION TECHNOLOGISTS

June 20, '96 - Feb. 24, '97, 5 participants

公衆衛生・環境汚染分析技術者

J-96-00296

- PURPOSE** The purpose of this training course is to provide participants, who are presently engaged as laboratory technologists in the field of public health, with fundamental and practical knowledge of public health technology through lectures, field work, laboratory work and observations.
- MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants and individual research work at laboratory. Each participant is to take one of the following subjects for their individual research: (1) infectious disease (2) medical zoology (3) food chemistry (4) air pollution (5) water pollution (6) snake venom and antivenom
- QUALIFICATION OF APPLICANT** (1) presently engaged in research work as a laboratory technologist in the field of public health (2) university graduate or equivalent with occupational experience of more than three years (3) under 41 years of age
- TRAINING INSTITUTIONS** (1) Okinawa International Centre (OIC), JICA (2) Okinawa Prefectural Institute of Public Health
- REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for eight weeks (220 hours).

SEMINAR ON HUMAN RESOURCES DEVELOPMENT IN PUBLIC HEALTH

Jan. 13, '97 - Feb. 2, '97, 10 participants

公衆衛生教育

J-96-00455

- PURPOSE** The purpose of this course is to enhance the ability of the participants to formulate a national and local programme for human resources development in public health. Though this might be very difficult to handle, exchange of experience and views in each country will be necessarily useful and meaningful. Therefore, in this course, the way which Japan is taking in public health administration and human resources development will be presented as the study material, and participants are required to fill out the questionnaire on this matter in order to make it easy to develop the mutual discussions.
- MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on discussions by participants, which follow lectures and field study to introduce Japanese systems and situations. The main themes are: (1) health administration and production of professional health personnel in Japan (2) institutions and personnel for public health services in Japan (3) systems and situations in participating countries
- QUALIFICATION OF APPLICANT** (1) be either (a) director/dean of a school of public health, (b) chief of educational courses/programmes at a school of public health, or (c) government official responsible for human resources development in public health (2) not less than 35 years of age
- TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) The Institute of Public Health, Ministry of Health and Welfare

OCCUPATIONAL HEALTH

Aug. 5, '96 - Dec. 8, '96, 10 participants

産業医学

J-96-00305

- PURPOSE** The purpose of the course is to provide participants with basic concepts and fundamental knowledge of occupational health. The knowledge obtained through the course will enable them to organize and conduct research planning, management and administration in order to prevent occupational diseases and to improve health conditions of workers in their respective countries.
- MAIN FEATURES OF CURRICULUM** The training course consists of five main parts, that is (1) lectures on occupational health (2) field trips (3) elective seminar (4) presentation (5) course on biostatistics and data management with computer. the following major subjects for occupational health are covered in the course: (1) general principle of occupational and environmental health (2) occupational epidemiology and biostatistics (3) occupational health in agriculture (4) occupational diseases (5) occupational disorders due to physical factors (6) occupational toxicology (7) work physiology and psychology (8) ergonomics and management (9) evaluation of work environment (10) control of work environment (11) occupational safety and health administration & law (12) occupational health service
- QUALIFICATION OF APPLICANT** (1) medical doctor in principle (university graduate with more than three years of professional or academic experience in the field of occupational health would be approved) (2) presently engaged or expected to be in the field of occupational health (3) 40 years of age or less
- TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) University of Occupational and Environmental Health, Japan (3) Rosai Hospital for Silicosis, Labor Welfare Projects Corporation
- REMARKS** A compulsory 25 hour Japanese language course will be conducted prior to the technical training.

RESEARCH FOR TROPICAL MEDICINE

Mar. 17, '97 - Nov. 26, '97, 9 participants

熱帯医学研究

J-96-00324

- 1. PURPOSE** The purpose of this course is to invite junior or senior scientists to Japan and give them the specialized research training in the area of tropical medicine.
- 2. MAIN FEATURES OF CURRICULUM** The course prepares individual research training for the participants in one of the nine departments, at the Institute of Tropical Medicine, Nagasaki University. Each department offers some research subjects of interest to the participants. Although the training course includes lectures, the main part of the course consists of basic research through experimental work under the guidance of the members of the institute. The nine departments are: (1) pathology (2) environmental physiology (3) parasitology (4) virology (5) bacteriology (6) protozoology (7) medical entomology (8) biochemistry (9) internal medicine
- 3. QUALIFICATION OF APPLICANT** (1) presently employed either at the Ministry of Health or medical research laboratory (2) medical doctor or graduate from a faculty of biology, pharmacy or agriculture or have at least three years of occupational experience in medical field (3) not less than 24 and not more than 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Institute of Tropical Medicine, Nagasaki University
- 5. REMARKS** A compulsory 25 hour Japanese language course will be conducted prior to the technical training.

VACCINE QUALITY CONTROL TECHNOLOGY

July 8, '96 - Dec. 18, '96, 6 participants

ワクチン品質管理技術

J-96-00367

- 1. PURPOSE** The participants are expected to acquire quality control technology for an acceptance inspection of their producing or imported vaccines and techniques for preserving, transporting or using vaccine correctly in their countries.
- 2. MAIN FEATURES OF CURRICULUM** This course consists of common subjects for all participants and group work at laboratory. Participants will be divided into 3 groups to cover one of the following subjects. Common subjects are: (1) quality control technology for measles vaccine, DPT vaccine and Japanese encephalitis vaccine. (2) effect of transportation and presentation conditions on the vaccine quality (3) good manufacturing practice. Participants will be divided into 3 groups to cover one of the following subjects: (a) measles virus vaccine (b) Japanese encephalitis vaccine (c) diphtheria pertussis-tetanus combined vaccine
- 3. QUALIFICATION OF APPLICANT** (1) university / college graduate or equivalent with occupational experience of more than three years in developing, manufacturing and quality control of biological products (2) under 35 years of age (3) engaged in the same field after returning to their country
- 4. TRAINING INSTITUTIONS** (1) Osaka International Centre (OSIC), JICA (2) Research Foundation for Microbial Diseases of Osaka University
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks.

MAINTENANCE ENGINEERING FOR MEDICAL EQUIPMENT

Aug. 15, '96 - Sep. 21, '96, 8 participants

医療機器保守管理技術

J-96-00428

- 1. PURPOSE** The purpose of this training course is to provide the participants with an opportunity to improve their maintenance technique of diagnostic X-ray apparatus produced by a Japanese manufacturing firm and provided by the Japanese Government as a part of its assistance programme.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on observation and practices at private factories. The course covers the following themes: (1) normal operation of conventional diagnostic X-ray apparatus (2) routine maintenance of diagnostic X-ray apparatus (3) troubleshooting and repair of diagnostic X-ray apparatus
- 3. QUALIFICATION OF APPLICANT** (1) (a) be presently engaged in maintenance of X-ray apparatus produced by such manufacturing companies as Hitachi Medical Corporation, Shimadzu Corporation and/or, Toshiba Corporation, and have an occupational experience in this field of more than three years (b) have efficient knowledge on two-pulse X-ray generator and combined radiographic devices (c) be expected to continuously resume the same duties as X-ray apparatus maintenance after returning home (2) college graduate specialized in electrical and/or electronic technology, or its equivalent (3) under 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japan Association for Advancement of Medical Equipments (JAAME)

SEMINAR ON EMERGENCY/ DISASTER MEDICINE

Oct. 28, '96 - Nov. 15, '96, 8 participants

救急・大災害医療セミナー

J-96-00427

- 1. PURPOSE** This seminar is designed for senior physicians and/or administrators who are in charge of emergency and disaster medicine in emergency medical facilities and medical administrations in participating countries. Participants are encouraged to discuss the conditions and problems of their countries on emergency/disaster medicine as comparative study, thus contribute to the further development of emergency/medical services system in each country and to the development of international cooperation in the event of a disaster.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on report presentation and discussions by participants, introduction of Japanese experience and basic theories of emergency/disaster medicine. The main themes are: (1) introduction (a) medical care system in Japan (b) history of emergency medical care in Japan (2) visits (observation) (a) emergency medical system in Japan (b) disaster preparedness (c) cooperation of governmental organization and private organization (d) cooperation among hospitals/clinics in EMS (e) education on emergency medicine
- 3. QUALIFICATION OF APPLICANT** (1) A senior doctor, or an administrator engaged in measures for emergency/disaster medicine and taking leadership in emergency medical institution or medical administrative organization
- 4. TRAINING INSTITUTIONS** Osaka International Centre (OSIC), JICA

SEMINAR ON EVALUATION OF DRUG EFFICACY

Mar. 17, '97 - June 30, '97, 6 participants

医薬品の効果判定セミナー

J-96-00471

- 1. PURPOSE** The purpose of this course is to provide senior researchers and middle level managers who are responsible for the evaluation of drug efficacy including traditional medicine (crude drugs) with information on: (1) management of laboratory activities (2) development of new drugs (3) basic and advanced knowledge of production (4) evaluation and quality control of drugs
- 2. MAIN FEATURES OF CURRICULUM** The seminar offers information on efficacy, safety and stability of drugs (including traditional drugs) as well as technology for development of new drugs to utilize medical resources. The subjects covered in the seminar are: (1) evaluation of traditional medicine (2) development of new drugs (3) production, evaluation, and quality control of biological products (4) drug disposition and pharmacokinetic analysis (5) dosage forms and administration (6) hospital pharmacy
- 3. QUALIFICATION OF APPLICANT** (1) pharmacist or medical doctor, and at the same time, senior researcher or manager responsible for the evaluation of drug efficacy or person of equivalent (2) 45 years of age or less
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Agency for Cooperation in International Health (3) Faculty of Pharmaceutical Science, Kumamoto University
- 5. REMARKS** A compulsory 25 hour Japanese language course will be conducted prior to the technical training.

COMMUNITY HEALTH SERVICES

Mar. 17, '97 - Sep. 22, '97, 8 participants

地域保健指導者

J-96-00489

- 1. PURPOSE** The purpose of the course is to provide training in practical methodology for health and hygiene diagnosis in communities, improvement of health and hygiene in communities and evaluation of such understandings, with a view of fostering those who are to take leading roles in the implementation of disease prevention and countermeasures, improvement and dissemination of hygiene standard.
- 2. MAIN FEATURES OF CURRICULUM** In this course, the emphasis is put on the introduction of the Japanese experience on how to plan programmes of the health and hygiene services, how to make the regional health diagnosis, how to improve the health and hygiene services and how to plan the investigation and research work useful for effective execution of the health and hygiene services. The subjects covered in the course are: (1) history and current status of health care in Japan (2) emergency medical care system (3) health statistics (4) nutrition (5) data processing (with personal computer) (6) countermeasures for infectious diseases (7) degenerative diseases (8) countermeasures for diseases (9) population problems, maternal & child health and school health (10) public health activities (11) and others
- 3. QUALIFICATION OF APPLICANT** (1) have practical experience of more than three years in health hygiene work (2) between 30 and 40 years of age
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) St. Mary's Hospital
- 5. REMARKS** A compulsory 135 hour Japanese language course will be conducted prior to the technical training.

SEMINAR ON THE CONTROL OF HEALTH HAZARDS IN THE MODERNIZING PROCESS OF AGRICULTURE AND RURAL AREA

Sep. 30, '96 - Dec. 2, '96, 8 participants

農村近代化過程の健康障害対策セミナー

J-96-00490

- 1. PURPOSE** The purpose of the training course is to provide participants with information on research and control measures developed in Japan during the last five decades. The course will help participants to: (1) assess the technology to be introduced (2) formulate the plans for development of rural health services which are applicable to their respective countries or regions
- 2. MAIN FEATURES OF CURRICULUM** The major subjects covered in the course are: (1) modernization and public health in rural areas (2) importance of health policies and primary health care in rural areas (3) problems on agricultural chemicals (4) health problems in the modernizing process of agriculture and forestry (5) health problems in rural areas
- 3. QUALIFICATION OF APPLICANT** (1) medical doctor or co-medical staff and, at the same time, manager of middle level or above, with more than five years' experience in the related fields (2) engaged in the work related to this course (3) 50 years of age or less
- 4. TRAINING INSTITUTIONS** (1) Kyushu International Centre (KIC), JICA (2) Agency for Cooperation in International Health
- 5. REMARKS** A compulsory 25 hour Japanese language course will be conducted prior to the technical training.

SEMINAR ON FAMILY PLANNING ADMINISTRATION FOR SENIOR OFFICERS II -Strengthening Coordination and Collaboration Between Government and Non-Governmental Organizations-

Aug. 20, '96 - Sep. 15, '96, 15 participants

家族計画指導者セミナーII～政府とNGOの連携強化～ J-96-00137

- 1. PURPOSE** The aims of the seminar are mutual exchange of information, experience and ideas on reproductive health/family planning among participating countries for better administration of the programme using Japanese experience in family planning, maternal and child health care (MCH) after World War II as case studies, and country presentations which is to be made by each participant.
- 2. MAIN FEATURES OF CURRICULUM** This seminar covers the following, (1) general outline of population/MCH/family planning in Japan (2) coordination and collaboration between government and NGO (3) exchange of information on situations and experiences in participating countries by presentation of Country Reports (4) adolescent health and reproductive health
- 3. QUALIFICATION OF APPLICANT** (1) high-ranking official responsible for administration, planning and implementation of the field programme by governmental/non governmental organization for family planning (2) between 35 and 50 years of age, and with more than five years experience in the field of reproductive health/family planning
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japanese Organization for International Cooperation in Family Planning, Inc. (JOICFP)

SEMINAR ON COMMUNITY-BASED FAMILY PLANNING STRATEGY

May 7, '96 - June 9, '96, 10 participants

家族計画組織活動セミナー

J-96-00190

- 1. PURPOSE** Japanese efforts to improve maternal and child health care in local communities under leadership and extensive activities by capable public health nurses or midwives after the Second World War have brought new and innovative ideas and strategies to all the relevant personnel engaged in field programmes of family planning. This seminar intends to provide the participants with an opportunity to understand the Japanese experience in this field and to mutually share their respective expertise in order to contribute to the promotion of reproductive health/family planning with active participation by local community.
- 2. MAIN FEATURES OF CURRICULUM** The following major subjects will be covered in the course. (1) general outline on population, maternal and child health (MCH) and family planning in Japan (2) strengthening of community participation (3) exchange of participant countries' situation and experiences through topics discussions (4) adolescent health and reproductive health
- 3. QUALIFICATION OF APPLICANT** (1) responsible for planning and implementing field programme by a governmental/non-governmental organization engaged in family planning (2) responsible person for developing IEC materials and IEC approaches for reproductive health and family planning (3) between 25 and 50 years of age
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japanese Organization for International Cooperation in Family Planning, Inc. (JOICFP)
- 5. REMARKS** This course is conducted every other year in principle. This year (in Japanese Fiscal Year 1996) it will be conducted.

PROSTHETIC AND ORTHOTIC TECHNICIANS

July 22, '96 - Dec. 8, '96, 4 participants

補装具製作技術

J-96-00321

- 1. PURPOSE** The purpose of the course is to introduce participants activities in prostheses and/or the fabrication thereof to the latest knowledge and techniques of this field through lectures, drills and field tours, and thus to improve techniques in their respective countries, and ultimately to promote the rehabilitation of physically disabled persons.
- 2. MAIN FEATURES OF CURRICULUM** This course is conducted in the form of lecture/discussion and practical training and mainly covers: (1) lecture (a) basic medicine (b) introduction to prosthetics and orthotics (c) functional anatomy (d) disabilities and clinical prosthetics and orthotics (2) technical study through practice (a) B/K prosthetics (b) A/K prosthetics (c) upper extremity prosthetics (d) upper and lower orthotics
- 3. QUALIFICATION OF APPLICANT** (1) have more than five years of practical experience in the production of prosthetic and orthotic devices (2) expected to become a leader in this field (3) under 45 years of age
- 4. TRAINING INSTITUTIONS** (1) Hachioji International Training Centre (HITC), JICA (2) National Rehabilitation Center for the Disabled
- 5. REMARKS** A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks (100 hours).

MENTAL RETARDATION

May 7, '96 - July 21, '96, 8 participants

精神薄弱福祉

J-96-00251

- 1. PURPOSE** This course aims to enhance participants' knowledge on mental retardation, to introduce Japan's welfare systems and various institutions for the mentally retarded and thus to help participants provide better systems in their respective countries.
- 2. MAIN FEATURES OF CURRICULUM** The course gives lectures on various rehabilitation services and related subjects, augmented by observations of relevant facilities. The second half of the curriculum gives participants an opportunity to closely survey particular institutions to deepen their understanding.
- 3. QUALIFICATION OF APPLICANT** (1) a chief officer of the central or local government, working in a section responsible for the improvement of education/training, welfare services, or employment of the mentally retarded/the physically & mentally handicapped, or currently in a position of director/manager (or a position responsible for planning and coordination of all activities) of an institution or special school for the mentally retarded. (2) expected to continue his/her duty after he/she returns. (3) more than 30 years of age.
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japan League for the Mentally Retarded (JLMR)

REHABILITATION OF DISABLED PERSONS (VOCATIONAL REHABILITATION AND WORKSHOP MANAGEMENT)

June 11, '96 - July 28, '96, 10 participants

障害者リハビリテーション指導者(リハビリテーション専門家) J-96-00429

- 1. PURPOSE** The purpose of this training course is to introduce the participants to Japanese rehabilitation systems for disabled persons, especially in vocational rehabilitation and workshop management, through a variety of lectures, study visits and practical training, and to provide opportunities to exchange idea and information among the participants in order to enable them to contribute to further development of their respective services.
- 2. MAIN FEATURES OF CURRICULUM** (1) The following major subjects will be covered in the course: (a) introduction to institutional activities and framework of Japanese rehabilitation services for disabled persons (b) Country Report (present status of disabled persons and rehabilitation services in participating countries) (c) workshop management (d) observations (community-based services) (e) wrapping-up (future action plan) (2) Through the training programme, the participants are expected to obtain efficient and practical theory and technique for managing a sheltered workshop established for the purpose of vocational and/or social rehabilitation. In order to achieve the above-mentioned objective, the participants are also requested, during the course programme, to create a better understanding on the present status in Japan on medical and educational rehabilitation, social services and the relevant laws and regulations for people with disabilities.
- 3. QUALIFICATION OF APPLICANT** (1) vocational rehabilitation center/workshop manager or rehabilitation expert such as an instructor, supervisor, social worker, vocational counsellor, vocational evaluator, or those who resume duties corresponding to the above-mentioned positions in such facilities as a sheltered workshop, work preparation centre, vocational/work evaluation centre, vocational training centre or other relevant facilities for disabled persons with occupational experience of more than two years (except a medical doctor and a nurse) (2) not less than 28 and no more than 40 years of age (3) be independent in daily activities (NOTE: No attendant shall be assigned for the participant during the course.)
- 4. TRAINING INSTITUTIONS** (1) Tokyo International Centre (TIC), JICA (2) Japanese Society for Rehabilitation of the Disabled