No. 177 工業所有権セミナー

SEMINAR ON INDUSTRIAL PROPERTY

1. PURPOSE

This Seminar is designed to offer the participants with an opportunity to reconfirm the importance of 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 home countries.

2. DURATION

From June 8, 1993 to July 3, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The main themes of this Seminar 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

5. QUALIFICATION OF APPLICANT

1) senior official (Director of the Department or the equivalent) 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 equivalent
3) between 30 and 50 years of age

6. 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 (JIII)

7. REMARKS

No. 178 法定計量

LEGAL METROLOGY

1. PURPOSE

This course, newly established in this fiscal year, is organized to give experienced controller and inspector of metrology an opportunity to upgrade capability in their specialized field through practical training and introduction to the latest information available in Japan.

2. DURATION

From August 30, 1993 to February 27, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course consist of common subjects for all participants as follows.

1) measurement law and measurement system
2) practical training on legal metrology techniques for exectors of the measurement law
3) latest information on measurement techniques and metrology and measurement standards

5. QUALIFICATION OF APPLICANT

1) presently engaged in inspection of metrology at governmental or semi-governmental metrology services

   Controller and inspector of metrology are qualified for this course. Administrative researchers are not qualified for this course
2) university graduate or equivalent with an occupational experience of more than three years in this field
3) over 25 and under 40 years of age

6. TRAINING INSTITUTIONS

1) Tsukuba International Centre (TBIC), JICA
2) National Research Laboratory of Metrology (NRLM), Agency of Industry Science and Technology, Ministry of International Trade and Industry
3) Tokyo Metropolitan Inspection Institute of Weights and Measures (TMIIWM)

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

No. 179 認証検査制度

CERTIFICATION SYSTEMS

1. PURPOSE

The purpose of this training course is to introduce the certification system which has contributed a great deal to Quality Assurance in Japan to all participants working in Certification Bodies, Testing Laboratories or Inspection Agencies in developing countries to encourage their interest in quality.

2. DURATION

From January 10, 1994 to March 11, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10) (One participant from one country in principle)

4. 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

5. QUALIFICATION OF APPLICANT

1) presently engaged in the work relating to certification, inspection and/or testing
2) under 40 years of age
3) university/college graduate or equivalent

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) Japanese Standards Association (JSA)
3) Standards Department, Agency of Industrial Science and Technology, Ministry of International Trade and Industry

7. REMARKS

No. 180 インダストリアルデザイン

INDUSTRIAL DESIGN

1. PURPOSE

The purpose of this course is to introduce the development process of industrial design and its techniques, and thereby contribute to the improvement of industrial design for industrial/export promotion in developing countries.

2. DURATION

From August 31, 1993 to November 6, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

There are three subjects to be taken up in this course, and in each year, one of these subjects is treated in turn in the following order.

(i) Interior design (for Furniture, Space)
(ii) Industrial design (for Industrial Products)
(iii) Package design (for Package)

The subject for this year (Japanese fiscal 1993) is "Package design". (In Japanese fiscal 1994, "Interior design" will be taken up.)

Under the said subject, the course covers the following;

1) concept of design development
   a) industrial design
   b) marketing activities
   c) design management in private companies (case studies)
2) practical techniques of design development (practice)
   a) industrial design plan and concept plan
   b) idea development
   c) design work
   d) presentation technique
   e) finishing work
3) present situation of industrial design in Japan
   study visits to private companies, design offices, and design exhibitions
4) presentation and evaluation of participants design works

5. QUALIFICATION OF APPLICANT

1) have more than five years of practical experience in this field
2) under 35 years of age

6. TRAINING INSTITUTIONS

1) Tokyo International Center (TIC), JICA
2) Japan Industrial Design Promotion Organization (JIDPO)

7. REMARKS

No. 181 セラミック窯炉及び焼成技術

CERAMIC KILN AND FIRING TECHNOLOGY

1. PURPOSE

The course is aimed at providing researchers presently engaged in the development work at 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 real conditions of participant's 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.

2. DURATION

From September 13, 1993 to March 3, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. 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

5. 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

6. TRAINING INSTITUTIONS

1) Nagoya International Training Centre (NITC), JICA
2) Technical Research Laboratory, Mino Yagyo Co., Ltd.

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for three weeks (105 hours).

No. 182 セラミック建材技術

CERAMIC BUILDING MATERIALS TECHNOLOGY

1. PURPOSE

It is expected that, upon completion of the course, the participants will acquire a great deal of technical knowledge and be able to contribute to the improvement of quality and productivity in the manufacture of the ceramic building materials.

2. DURATION

From August 23, 1993 to March 3, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The large part of this training course is allocated to the production process and technique of ceramic wall tile from raw materials to finished products. In addition, as for the other ceramic building materials (common brick, roof tile, sanitary ware, and so on), their production technique and problems are introduced during lectures and visits.

The main themes are:

1) quality control
2) analysis and evaluation of raw materials
3) body preparation
4) forming
5) glaze preparation
6) firing
7) other products

5. QUALIFICATION OF APPLICANT

1) university graduate or equivalent
2) presently engaged in this field at industries, research institutes or vocational institutes
3) occupational experience of more than three years
4) between 26 and 40 years of age

6. TRAINING INSTITUTIONS

1) Nagoya International Training Centre (NITC), JICA
2) INAX Corporation

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks (100 hours).

No. 183 ファインセラミックス応用技術

HIGH TECHNOLOGY MATERIALS APPLICATION
(Fine ceramics, composites, metals)

1. 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 about functional materials as mentioned in sub-title above, whose demand has been incessantly growing in recent years, so as to expedite the development in their respective countries.

2. DURATION

From May 10, 1993 to August 5, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7) (One participant from one country in principle)

4. 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

5. QUALIFICATION OF APPLICANT

1) university graduate or equivalent
2) occupational experience of more than three years
3) between 26 and 40 years of age

6. 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

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (30 hours).

No. 184 石油化学工業

PETROCHEMICAL INDUSTRY

1. PURPOSE

The purpose of this course is to provide the participants, who are presently engaged in petrochemical industry, with opportunities to acquire comprehensive knowledge of Japan's present situation in this field for wholesome promotion of petrochemical industrialization in their countries.

2. DURATION

From January 17, 1994 to February 27, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The course emphasized the acquisition of the knowledge of (1) the situation of world and Japanese petrochemical industry, (2) modern petrochemical technology, and (3) management of petrochemical industry necessary for the wholesome promotion of petrochemical industrialization, through the lectures, discussions, and observations.

5. QUALIFICATION OF APPLICANT

1) senior position with high responsibility in the field of petrochemical industry or its development programme
2) university graduate or equivalent
3) not more than 40 years of age

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Japan Petrochemical Industry Association (JPCA)

7. REMARKS

CHEMICAL TECHNOLOGY

1. PURPOSE

The course is designed for researchers presently engaged in chemical technology in developing countries to upgrade their technical knowledge and research skills in the said field. Various experiences obtained throughout the training would hopefully give an incentive to their future research work. 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 acquainted with the methods used in conducting basic research.

2. DURATION

From August 30, 1993 to August 28, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course consists of common subjects for all participants and individual training at laboratory. Each participant is to take one of the following subjects for their individual research:

1) advanced technique for treatment of waste water containing organic materials
2) catalysis-removal of Nitrogen Oxides
3) characterization of functional materials by surface analysis techniques
4) development of inorganic membranes and membrane reactors
5) environmental chemistry (degradation and elimination of polluting material and its analysis)
6) extraction and purification of valuable components using supercritical fluids
7) molecular characterization and functionalization of chitosan
8) organic synthesis under high pressure
9) physico-chemical studies on surfactants at interfaces
10) photo-functional molecular thin films
11) structure and reactivity of middle distillate in petroleum oil
12) syntheses of specialized surfactants and their application
13) syntheses and application of organic silicon compounds
14) reaction engineering for utilization of heavy oils and coals
15) biochemical and biophysical study of calcium transport and calcium mineralization
16) syntheses of bioactive compounds and specific catalysts for removal of green house gas
17) lipid chemistry

5. QUALIFICATION OF APPLICANT

1) university graduate in chemical technology with occupational experience of more than three years in respective research fields of chemical technology. Administrative officers are not qualified for this training course. (The purpose of the Course is to train applicants to become a leading researcher capable of contributing to the industry of their countries in the future.)
2) between 25 and 40 years of age

6. TRAINING INSTITUTIONS

1) Tsukuba International Centre (TBIC), JICA
2) National Institute of Materials and Chemical Research
3) National Institute of Bioscience and Human-Technology

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for one month (100 hours).

No. 186 触媒科学研究

CATALYTIC SCIENCE

1. PURPOSE

The purpose of the course is to enable participants to understand both basic and practical aspects of catalysis on four main themes in catalysis: 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. DURATION

From August 31, 1993 to February 24, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. 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) Heterogeneous Catalysis-A (advanced catalyst design)
   - catalysis for environmental chemistry and saving natural resources and energy (eg. utilizing and replacing freon gas)
2) 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
3) Homogeneous Catalysis (catalysis in fine organic synthesis)
   - catalytic asymmetric of optically active compounds applied to medicines and agricultural chemicals
4) Surface Science (surface structure and properties)
   - surface phenomena such as chemical reaction and crystal growth, etc.
   - design and construction of sophisticated equipment such as low-energy electron diffraction and high-energy electron diffraction
5) Electrocatalysis (interfacial energy conversion)
   - high efficiency of energy conversion in electrochemical systems, typically, transportable fuel cell used as advanced fuels
   - electrochemical aspects of cold fusion (nuclear fusion in cold temperature)

5. 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 university graduation
3) over 25 and under 40 years of age

6. TRAINING INSTITUTIONS

1) Hokkaido Branch Office, JICA
2) Catalysis Research Center, Hokkaido University

7. REMARKS

BIOINDUSTRIES

1. PURPOSE

The course aims at providing experts who are at present engaged in research/educational institutions or industries with more knowledge on bioindustry

2. DURATION

From May 10, 1993 to August 5, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course mainly covers:

1) Japanese bioindustry
2) material production in biotechnology
3) fermentation industry in Japan
4) plant cell engineering
5) recombinant DNA technology
6) bioreactor, cell fusion, biomolecule purification
7) bio-tec supporting equipment and system
8) utilization of microbial cell and energy
9) alcohol production from biomass
10) food biotechnology, microbial and enzyme conversion
11) materials for molecular biology
12) marine biotechnology, human and animal cell engineering
13) enzyme industries, biosensing
14) new development of bioindustry policy

5. QUALIFICATION OF APPLICANT

1) expert presently engaged in biotechnology and related technology at industry, research/educational institutes with more than two years of experience
2) university graduate or equivalent
3) between 25 to 45 years of age

6. TRAINING INSTITUTIONS

1) Nagoya International Training Centre (NITC), JICA
2) Japan Bioindustry Association (JBA)
3) public institutes, universities, industries

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

No. 188 有機ファインケミカルズ工学

ORGANIC FINE-CHEMICALS TECHNOLOGY

1. PURPOSE

The participants of this course, who are researchers and engineers engaged in researches to synthesize organic fine-chemicals and develop 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 contribute to the development of knowledge and technologies in the related field in their countries.

2. DURATION

From August 5, 1993 to December 5, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this course, the emphasis is put on laboratory experiments.

The main themes are:

1) industrial organic chemistry (lecture)
2) organic unit reactions (lecture, practice) (nitration, reduction, diagonation, sulfonation)
3) instrumental analysis (lecture, practice) (GC, LC, MASS, NMR, IR, UV, EA, light scattering, zeta potential, ion chromate, capillary GC, DSC)
4) organic synthetic chemistry (lecture, practice)
5) organic chemistry and organic structure
6) synthesis of color-material (e. g., dye-stuff), and application techniques (lecture, practice)
7) textile processing and dyeing techniques (lecture)
8) synthetic methods of intermediate products of pharmaceutical drugs and pesticides (lecture, practice)
9) detergent-cleaning techniques (lecture, practice)
10) adsorption materials techniques (lecture, practice)
11) environmental pollution control techniques (lecture, practice)

5. QUALIFICATION OF APPLICANT

1) hold 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

6. TRAINING INSTITUTIONS

1) Osaka International Training Centre (OITC), JICA
2) Osaka Municipal Technical Research Institute (OMTRI)

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

No. 189 高分子材料工学

POLYMER MATERIALS AND TECHNOLOGY

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 board and profound knowledge and experience in their specialized field.

2. DURATION

From May 13, 1993 to August 29, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6) (One participant from one country in principle)

4. 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

5. 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

6. TRAINING INSTITUTIONS

1) Osaka International Training Center (OITC), JICA
2) Osaka Municipal Technical Research Institute (OMTRI)

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

No. 190 高分子研究

POLYMER SCIENCE AND TECHNOLOGY

1. PURPOSE

This course is designed for junior researchers presently engaged in polymer science and technology to upgrade their technical knowledge and research skills in the said field. Various experiences obtained throughout the training would hopefully give an incentive to their future research work. 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 acquainted with the methods used in conducting basic research.

2. DURATION

From June 28, 1993 to January 30, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course consists of common subjects for all participants and individual training at laboratory. Each participant is to take one of the following subjects for their individual research.

1) Synthesis and Characterization of Poly (tert-butyl (meth) acryloylthiolate).
2) Application of Thermosensitive Polymers.
3) Photochemical Behavior of Cyclic and Acyclic Olefines in Polar Solvents
4) Characterization of Superstructure of Oriented Polymers.
5) Structure and Properties of Oriented Semi-crystalline Polymers.
6) Preparation and Characterization of Organic Polysilanes.
7) Synthesis and Physico-chemical Properties of Novel Glycolipids.
8) Numerical Analysis of Composite materials by Computer.
9) Preparation of High-performance Hollow Fibers and their Characterization.
10) Biomimetic materials.
11) Development of Membrane Stripping Module for Water Purification.

5. QUALIFICATION OF APPLICANT

1) researcher with a bachelor's degree, capable of carrying out basic research in the field of polymer science and technology
2) presently engaged in research work in the field of polymer 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

6. TRAINING INSTITUTIONS

1) Tsukuba International Centre (TBIC), JICA
2) National Institute of Materials and Chemical Research (NIMC)

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

No. 191 先進ガラス材料

ADVANCED GLASSES TECHNOLOGY

1. PURPOSE

This course is organized to introduce comprehensive knowledge on advanced glass materials to engineers, technologists and researchers well versed in glass technology. It is hoped that this course will be of help in fostering glass technologists who can play a leading role in R & D and study groups in the field of glass technology in developing countries.

2. DURATION

From January 13, 1994 to July 10, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course consists of common subjects for all participants and individual research work at laboratory.

1) lectures: advanced glass materials (7 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.
   - Study of glass structure
   - Structure and physical properties of ion-implanted glass
   - Chemical resistance of glass
   - Crystallization of glass under microgravity
   - Separation property of porous glass
   - Preparation and structure of halide glass, excluding fluroride
   - Quartz glass

5. QUALIFICATION OF APPLICANT

1) hold at least a Master's degree in technology
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 company 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

6. TRAINING INSTITUTIONS

1) Osaka International Training Centre (OITC), JICA
2) Government Industrial Research Institute, Osaka (GIRIO)

7. 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)

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. DURATION

From September 6, 1993 to March 3, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. 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

5. 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

6. TRAINING INSTITUTIONS

1) Nagoya International Training Centre (NITC), JICA
2) Government Industrial Research Institute, Nagoya (GIRIN)
3) Industrial Research Institute, Aichi Prefectural Government

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks (100 hours).

No. 193 表面改質技術（金属・非金属・新素材及び防食）II

SURFACE MODIFICATION TECHNOLOGY FOR MATERIALS (ANTI-CORROSION, SURFACE TREATMENT OF METAL, NON-METAL, NEW-MATERIALS) II

1. PURPOSE

The aims of the course are to help the senior administrative engineers of governmental organizations to have broader views on construction engineering by introducing the latest techniques and information related to construction engineering, thus to contribute to the development of human resources in this field of developing countries.

2. DURATION

From May 10, 1993, September 16, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course mainly covers:

1) materials
   metals and metallurgy, corrosion of metals
   non-metals. composites and new materials
2) surface modification technology
   electro-electroless plating and coating, electroforming, anodising, vacuum metallurzing, plasma coating, PVD, CVD, powder coating, phosphating, metal colouring, surface hardening & strengthening, ion-plating, ceramic film coating
3) related technologies
   resource recycling, waste water treatment, equipment modernization

5. QUALIFICATION OF APPLICANT

1) university graduate or equivalent
2) qualified in their respective fields
3) ocupational experience of more than two years
4) under 40 years of age

6. 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

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for three and a half weeks (85 hours).

No. 194 電炉・連鋳管理技術

ARC FURNACE AND CONTINUOUS CASTING CONTROL TECHNOLOGY

1. PURPOSE

The purpose of this training course is to provide engineers who are presently engaged in the field of electrical steel making with comprehensive knowledge of controlling arc furnace and continuous casting operations.

2. DURATION

From November 1, 1993 to March 3, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this course, the emphasis is put on lectures and observations.

The main themes are:

1) steel materials
2) electric arc furnace equipment and control units
3) electrical steel making and its control
4) continuous casting operation and computerized control
5) secondary refining technology
6) quality control

5. QUALIFICATION OF APPLICANT

1) university graduate in metallurgical or mechanical engineering or equivalent
2) currently engaged in the field of electrical steel making for more than three years preferably at steel making plant and not be academic researches or technicians
3) under 35 years of age

6. TRAINING INSTITUTIONS

1) Nagoya International Training Centre (NITC), JICA
2) Aichi Steel Works, Ltd.
3) Chubu Steel Works, Ltd.
4) Daido Steel Co., Ltd.
5) Topy Industries Ltd.
6) other public institutions and private enterprises

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for three weeks (80 hours).

No. 195 鋼材の加工と加工特性

STEEL PROPERTIES FOR FABRICATION

1. PURPOSE

In the fabrication of steel, the selection of fabrication methods and conditions appropriate to the properties of each steel is very important, and the required quality standards should be obtained.

The purpose of the course is to provide participants with knowledge and techniques in order to achieve these prerequisites.

2. DURATION

From June 7, 1993 to October 10, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

Participants will understand the steel properties for fabrication through acquiring the knowledge of production method, process, 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

5. 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

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Kitakyushu International Techno-cooperative Association
3) Kyushu Institute of Technology

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for 25 hours.

No. 196 熱処理技術

HEAT TREATMENT TECHNOLOGY

1. 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; especially for motor vehicle and related industries 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.

2. DURATION

From September 13, 1993 to December 9, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course mainly covers:

1) carbon steels, alloyed steels, metal composites
2) heat treatment furnaces and related installations
3) annealing, tempering, quenching, normalizing, carburizing, nitriding, etc.
4) related technologies; ion-nitriding, surface modification, etc.

5. QUALIFICATION OF APPLICANT

1) engineer presently engaged in heat treatment technology at industry/research or educational institutes with more than two years of experience
2) university graduate or equivalent
3) between 30 and 40 years of age

6. TRAINING INSTITUTIONS

1) Nagoya International Training Centre (NITC), JICA
2) Industrial Research Institute, Aichi Prefectural Government
3) Aichi Industrial Research Association (AIRA)

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

No. 197 建設機械整備 II

MAINTENANCE OF CONSTRUCTION MACHINERY II

1. 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.

2. DURATION

From May 13, 1993 to August 8, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

Most part of this course is practical training at 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.)

5. 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

6. TRAINING INSTITUTIONS

1) Tokyo International Center (TIC), JICA
2) Construction Equipment Division, Ministry of Construction
3) Japan Construction Mechanization Association (JCMA)

7. REMARKS

D'ENTRETIEN ET DE REPARATION DE L'EQUIPEMENT DE CONSTRUCTION

1. BUT

Le cours est destiné au personnel technique ayant les services d'entretien et de gestion des machines de construction dans les pays participants et vise à leur fournir les informations récentes de notre pays sur la spécialité concernée pour contribuer, finalement au développement technique des pays respectifs par lássimilation technique.

2. DUREE

Du 4 octobre 1994 au 19 décembre 1993

3. NOMBRE DES STAGIAIRES À ACCUEILLIR

Huit (8) (1 stagiaire pour un pays)

4. CARACTÉRISTIQUES DU COURS

Le présent cours se caractèrise par le déroulement de stage à quelques constructeurs d'équipements de construction.

Cela facilitera l'acquisition de connaissances sur l'entretien et la réparation des équipements de construction ainsi que la gestion de l'atelier de l'entretien.

Théorique

gestion de l'equipement de construction, heure-homme standard de réparation, coût de possession de l'equipment de construction, gestion de l'atelier, carburant et lubrifiant, inspection des pièces, soudure.

Pratique

moteur, système d'embrayage, convertisseur de couple, boite des vitesses, bulldozer, chargeur, excavateur hydraulique, compacteur

5. CAPACITÉS DES CANDIDATS

1) à présent engagés plus en possession de plus de trois ans d'expérience dans le domaine de l'entretien d'équipement de construction
2) âgés de plus de 25 ans et de moins de 35 ans
3) dotés d'une connaissance suffisante de la langue française

6. INSTITUTION DU STAGE

1) Hachioji International Training Centre (HITC), JICA
   ou Centre de Formation Internationale de Hachioji
2) Division de l'Equipement de Construction, Ministère de la Construction
3) Japan Construction Mechanization Association (JCMA)
   ou Association Japonaise de Mecanisation de Construction

7. REMARQUES

Le cours s'effectuera en français ou par traduction du japonais en français.

MECANIQUE AUTOMOBILE VÉHICULES DIESEL (AUTOBUS, CAMIONS POIDS-LOURD)

1. BUT

Ce cours est destiné aux mécaniciens travailliant à l'entretien des autobus et des camions poids-lourd.

Il vise à leur fournir les connaissances fondamentales sur le mécanisme et le fonctionnement des véhicules diesel par le cours théorique et les travaux pratiques, ainsi que les tedchniques de réparation et d'entretien.

2. DUREE

Du 10 janvier 1994 au 26 mars 1994

3. NOMBRE DES STAGIAIRES À ACCUEILLIR

Onze (11) (1 stagiaire pour un pays)

4. CARACTÉRISTIQUES DU COURS

Le présent cours se caractèrise par l'acquisition des techniques d'entretien efficaces à travers les cours théoriques et les travaux pratiques pour chaque matière.

A la fin de ce stge, les participants auront acquis les connaissances fondamentales sur les théories, les techniques de réparation et d'entretien ci-dessous concernant les autobus et les camions:

moteur diesel et equipement périphériques, boite des vitesses

pompe d'injection distributrice, freinage

essieux avant et arrière et différential, equipement électrique

5. CAPACITÉS DES CANDIDATS

1) an possession de plus de trois and d'expérience dans le domaine de l'entretien et la réparation dews véhicules diesel
2) âgés de plus de 25 and et de 35 ans
3) dotés d'une connaissance suffisante de la langue française

6. INSTITUTION DU STAGE

1) Hachioji International Training Centre (HITC), JICA
2) La Société de Fabrication Automobile de Hino (Hino Motors Limited)

7. REMARQUES

Le cours s'effectuera en français ou par traduction du japonais en français.

No. 200 プラントメンテナンス技術

PLANT MAINTENANCE ENGINEERING

1. PURPOSE

The purpose of this course is to enhance the capability of maintenance managers or engineers of continuous process plants who are intending to introduce preventive maintenance system in a plant, or have already introduced the system but have problems in carrying out the system smoothly.

2. DURATION

From May 10, 1993 to October 1, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this course, emphasis is put on the introduction of basic subjects of computerized maintenance management and techniques and is also put on practical maintenance technology and effective maintenance management on factory floor through plant visits.

The course mainly covers:

1) computer literacy
2) maintenance of automatic control system
3) fatigue of metals and fractography
4) equipment inspection technique
5) non-destructive testing
6) tribology and abrasion resistance
7) lubrication technique
8) heat treatment and hard facing

5. QUALIFICATION OF APPLICANT

1) engineer or manager with more than three years' occupational experience in the field of plant maintenance work
2) presently in charge of maintenance work in continuous process plants, such as iron and steel, oil refinery or chemical, cement plant, automotive plant, etc.
3) university graduate or equivalent
4) 45 years of age or less

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Kitakyushu International Techno-cooperative Association
3) Kyushu Institute of Technology
4) Nippon Steel Corporation

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for 25 hours.

No. 201 自動制御

AUTOMATIC CONTROL (GENERAL INTRODUCTION)

1. 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.

2. DURATION

From July 5, 1993 to November 26, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The course is conducted in the form of lectures, practice, exercise on simulator and factory observations, in order to cultivate participants' own basic and practical knowledge of automatic control so as 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 and topics
3) computer literacy
4) basic and application of micro computer
5) process control
6) digital process control system simulation
7) sequency control
8) industrial electric control system

5. QUALIFICATION OF APPLICANT

1) have more than four years of occupational experience in the field of production, planning of plants and mechinery
2) engaged in the automation presently, or will be engaged in it in the near future
3) university graduate in electrical, control or mechanical engineering, or equivalent
4) 40 years of age or less

6. 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

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for 25 hours.

No. 202 設備診断技術

MACHINE CONDITION DIAGNOSIS TECHNIQUE (INSPECTION TECHNIQUE FOR PLANT MAINTENANCE)

1. PURPOSE

This training course is set up for maintenance directors, managers and engineers in developing countries 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.

2. DURATION

From June 28, 1993 to October 24, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The training course is programmed to help participants acquire knowledge on inspection techniques including the 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
4) vibration and its measurement
5) vibration analyzing instrument
6) diagnostic methods for rotating machines and elements
7) basic concept of condition based maintenance system
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

5. 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

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Kitakyushu International Techno-cooperative Association
3) Kyushu Institute of Technology

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for 25 hours.

No. 203 保全管理

PLANT MAINTENANCE MANAGEMENT

1. PURPOSE

The purpose of this course is to enhance the maintenance management capability of managers or engineers in the maintenance departments, and further, to provide the participants with training on the rationalized and effective utilization of the management resources (men, materials, equipment, information and funds) of each corporation and the technical transfer of the concrete maintenance management procedures necessary for execution of the preventive maintenance.

2. DURATION

From January 17, 1994 to May 25, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this course, the emphasis is put on the introduction of Japanese experience or the actual state of the maintenance management of Japanese leading 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 inspectionplan
15) sededule 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

5. 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

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Kitakyushu International Techno-cooperative Association

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for 25 hours.

No. 204 プラント用保全部品

SPARE PARTS FOR PLANT MAINTENANCE

1. PURPOSE

This training course is set up for the plant maintenance managers or engineers in charge of spare parts control, procurement or manufacture of the parts.

The purpose of the course is to enable participants to:

1) make out planning, design or documents necessary to order spare parts for domestic manufacture
2) develop ability to instruct and control quality, cost or delivery for domestic parts manufacturer
3) develop ability to improve parts for prolonging useful life or reclaim broken or damaged parts

2. DURATION

From May 31, 1993 to October 29, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

Participants will acquire the knowledge and techniques required for the domestic production or reclamation of spare parts.

The main themes are:

1) basic subjects on machine parts and unit design techniques
2) systematizing inventory control of spare parts for repairs
3) analyzing causes of machine parts breakdown
4) choosing proper materials as well as improving the materials by heat treatment or surface processing
5) improving parts design for longer life
6) preparation of technical specification for ordering spare parts and/or basic knowledge required for instructing parts manufacturers
7) techniques on reclaiming broken or damaged spare parts
8) applying computer to design and control of spare parts

5. QUALIFICATION OF APPLICANT

1) have 5 to 15 years' occupational experience in the field of maintenance engineering
2) in charge of purchace and control of spare parts
3) university graduate or equivalent in mechanical engineering
4) 40 years of age or less

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Kitakyushu International Techno-cooperative Association
3) Fukuoka Industrial Technology Center

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for 25 hours.

No. 205 金属加工高品質化技術 II

HIGH TECHNOLOGY OF METAL WORKS II

1. 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.

2. DURATION

From September 13, 1993 to March 3, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6) (One participant from one country in principle)

4. 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) related technologies; heat treatment, surface modification, etc.

5. QUALIFICATION OF APPLICANT

1) engineer presently engaged in metal works technology at industry/research or educational institutes with more than two years of experience
2) university graduate or equivalent
3) between 26 and 35 years of age

6. TRAINING INSTITUTIONS

1) Nagoya International Training Centre (NITC), JICA
2) Government Industrial Research Institute, Nagoya (GIRIN)
3) Industrial Research Institute, Aichi Prefectural Government
4) Aichi Industrial Research Association (AIRA)

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks (100 hours).

FACTORY MANAGEMENT FOR PRODUCTION MANAGERS IN MACHINING INDUSTRY

1. PURPOSE

The purpose of the course is to provide production managers and industrial engineers with practical knowledge and application on process design and improvement related to jigs and fixtures vis-a-vis factory management. Furthermore, the course aims to develop the capability to establish an effective production system which can fully utilize existing manufacturing technology and skill.

2. DURATION

From May 10, 1993 to September 16, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In the course, the emphasis is put on lectures, practical training and observations.

The main themes are:

1) industrial development from macroscopic viewpoint
2) practical knowledge of jigs and fixtures
3) application of jigs and fixtures to process design and improvement
4) practices of plant management
5) plant improvement techniques
6) integrated production system

5. QUALIFICATION OF APPLICANT

1) university graduate or equivalent with occupational experience of more than five years
2) in charge of production management, industrial engineering, production engineering, etc. (production manager, supervisor and industrial engineer are most preferable. engineers in other field of engineering will be acceptable.)
3) under 45 years of age

6. TRAINING INSTITUTIONS

1) Nagoya International Training Centre (NITC), JICA
2) CHU-SAN-REN (Central Japan Industries Association)
3) related industries

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (85 hours).

WELDING TECHNOLOGY

1. PURPOSE

The course is designed for graduates from the engineering faculty of a university or the equivalent in order to upgrade their knowledge and skills to be qualified officially as welding engineer.

2. DURATION

From May 10, 1993 to November 1, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course will be conducted in the form of lecture, practical exercises and factory observations.

The main themes are:

1) welding processes and equipment
2) materials and their behaviours during welding
3) construction and design
4) fabrication, application engineering
5) fundamental practical operation
6) factory observation

5. QUALIFICATION OF APPLICANT

1) university graduate or equivalent
2) welding engineer or researcher
3) occupational experience of more than three years
4) between 26 and 35 years of age

6. TRAINING INSTITUTIONS

1) Nagoya International Training Centre (NITC), JICA
2) Japan Welding Engineering Society

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks (100 hours).

No. 208 空調技術

AIR-CONDITIONING ENGINEERING

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. DURATION

From August 5, 1993 to December 8, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6) (One participant from one country in principle)

4. 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
   - process management
   - quality control technology
4) practice
   - general work of system design
   - drawing up plans
   - application designing of equipment
   - execution of general design work
5) factory visits for related equipment

5. 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

6. TRAINING INSTITUTIONS

1) Osaka International Training Centre (OITC), JICA
2) Kanaoka Training Center, Sakai Plants, Daikin Industries Ltd.
3) Daikin Plant Co., Ltd.

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks.

No. 209 荷役機械の設計・製造

DESIGN AND MANUFACTURING OF MATERIAL HANDLING EQUIPMENT

1. PURPOSE

For the purpose of manufacturing the machinery, integrated technical knowledge of design (mechanical and electrical), fabrication, machining, assembly, inspection and production management is required. From this point of view, in this course, the design and manufacturing of overhead travelling crane is picked up as the case study.

2. DURATION

From November 29, 1993 to April 24, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this course, the emphasis is put on the practical exercise of designing by using computers and other basic manufacturing technology.

The subjects covered in the course are:

1) computer literacy
2) outline of crane
3) fatigue of metals
4) strength of materials
5) basic design of cranes
6) design of crane parts
7) crane design by personal computer
8) CAD
9) theory of structures for crane design
10) planning of cranes
11) design and drawing of crane girder
12) control and maintenance of electric motor and control of crane
13) manufacturing control and testing
14) heat treatment of metals
15) improving technique of industrial control
16) non-destructive testing and machine condition diagnosis technique

5. QUALIFICATION OF APPLICANT

1) have more than three years' occupational experience in the field of machine design or manufacturing
2) university graduate in engineering or equivalent
3) 40 years of age or less

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Kitakyushu International Techno-cooperative Association

7. REMARKS

1) A compulsory intensive Japanese language course will be conducted prior to the technical training for 25 hours.

No. 210 油圧とその応用

OIL HYDRAULICS AND ITS APPLICATION

1. PURPOSE

The purpose of the course is to enhance the capabilities of participants who have had an experience in the field of oil hydraulics such as designing, manufacturing, operation or maintenance.

The knowledge and techniques acquired through the training course will enable participants to:

- understand fundamental concept of oil hydraulic engineering from basic components to sofisticated applications,
- gain the fundamental knowledge of applying hydraulic systems to machinery systems,
- be familiar with the comperative ideas of hydraulic systems and pure mechanical, electrical and pneumatic methods.

2. DURATION

From November 1, 1993 to March 25, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The subjects covered in the course are:

1) introduction to oil hydraulics
2) primarily applied hydraulics
3) equipment manufacturers' comments
4) applied hydraulics to mashinery system
5) maintenance of hydraulic systems

5. QUALIFICATION OF APPLICANT

1) have occupational experience of planning, design, application or maintenance of hydraulic
2) university graduate or equivalent
3) 35 years of age or less

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Kitakyushu International Techno-cooperative Association

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for 25 hours.

No. 211 家庭用電気製品検査技師

INSPECTION AND TESTING TECHNIQUES FOR HOUSEHOLD ELECTRICAL APPLIANCES

1. 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.

2. DURATION

From September 23, 1993 to December 1, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course consists of lecture, practical training and observation tour. Participants are expected to learn inspection and testing techniques for household electrical appliances through lecture, practical training and observation tour.

5. 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
2) be with more than three years of occupational experience in the field of testing of household electrical appliances
3) college graduate or equivalent, having majored in electrical, electronics, or mechanical engineering
4) between 25 and 40 years of age

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) International Trade and Industry Inspection Institute, Ministry of International Trade and Industry
3) JMI Institute
4) Japan Electrical Testing Laboratory (JET)

7. REMARKS

No. 212 船舶建造メンテナンス

SHIPBUILDING, REPAIRING AND MAINTENANCE

1. PURPOSE

The purpose of the course is to provide participants with fundamental and practical knowledge, and applicable techniques in the field of shipbuilding, repair, inspection and maintenance, and thus to contribute to the development of these fields in the participating countries.

2. DURATION

From January 6, 1994 to December 5, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Twenty (20) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course consists of common subjects (obligatory lectures and practical at shipyards, etc.) for all participants and optional lectures for which participants will be divided into two groups according to their choice.

The following major themes will be covered in the course.

1) comprehensive and fundamental knowledge and techniques (basic plan and design, repair, marine engines, electrical and electronic equipment, ships for special purpose, quality assurance and standardization in shipyards, safety, etc.)
2) practical knowledge on building (optional)
   (hull construction, outfitting, production control, shipyard management, computer applications, etc.)
3) practical knowledge on maintenance (optional)
   (maintenance of machinery, safety systems and standards, supervision and inspection, etc.)

5. QUALIFICATION OF APPLICANT

1) presently engaged in the either field of (1) construction or repair of ships and offshore structure in shipbuilding or repair yards, (2) control or improvement of ship safety, (3) ordering, ownership and maintenance of ships in a shipping, fishery, or port and harbor organization, or (4) administration, research, education, training etc. concerning the above items
2) university graduate in engineering or equivalent with more than three years of occupational experience in one of the above-mentioned fields, or university graduate in naval architecture
3) not more than 35 years of age

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) Maritime Technology and Safety Bureau, Ministry of Transport
3) Overseas Shipbuilding Cooperation Center (OSCC)

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for 270 hours.

No. 213 自動車の安全・公害対策技術

AUTOMOBILE SAFETY AND POLLUTION CONTROL TECHNOLOGY

1. 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 specialist in the automotive industry in developing countries.

The participants in this course will undergo training of a highly specialized content such as automotive safety, pollution control, energy problem, 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.

2. DURATION

From May 17, 1993 to July 11, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15) (One participant from one country in principle)

4. 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.

5. 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

6. TRAINING INSTITUTIONS

1) Tsukuba International Centre (TBIC), JICA
2) Japan Automobile Research Institute Inc. (JARI)

7. REMARKS

No. 214 設備のリノベーション

RENOVATION OF INDUSTRIAL EQUIPMENT

1. PURPOSE

The purpose of this course is to enhance the capability of the engineers in charge through learning the basic knowledge to utilize the existing equipment and facilities effectively, to find out the capability of the renovation, and to redesign the existing equipment by each participants, and besides them this course aims at fostering basic ability and knowledge of the participants for the purpose of preparing the purchase specification of improved equipment parts.

2. DURATION

From February 21, 1994 to July 17, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this course, the emphasis is put on to have the participants aquire the basic techniques, their application and the project managing ability which they will gradually improve their required technique in actual operation in their respective countries.

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) nondestructive 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
   f) selection of general purpose machines and writing specifications thereof
   g) plan and design of piping
   h) design of conveyor unit
   i) case study of equipment renovation
   j) in-plant training

5. 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.

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Kitakyushu International Techno-cooperative Association

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for 25 hours.

No. 215 繊維製品検査技師

INSPECTION AND TESTING TECHNIQUE FOR TEXTILE PRODUCTS

1. PURPOSE

The purpose of this course is to introduce to the participants Inspection and Testing techniques for textile products 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.

2. DURATION

From January 10, 1994 to March 20, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course consists of lecture, practical training and observation tour. Participants are expected to learn inspection and testing techniques for textile products through lecture, practical training and observation tour.

5. 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 related field
2) college graduate or equivalent, having majored in textile or chemical engineering
3) between 25 and 40 years of age

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) International Trade and Industry Inspection Institute, Ministry of International Trade and Industry
3) Japan Synthetic Textile Inspection Institute Foundation
4) Japan Spinners Inspection Foundation
5) Japan Knitting Inspection Institute Foundation
6) Japan Sewing goods Inspection Foundation

7. REMARKS

No. 216

木質材料高度利用技術

WOOD BASED MATERIALS APPLICATION TECHNOLOGY

1. PURPOSE

The course 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. DURATION

From August 16, 1993 to December 9, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7) (One participant from one country in principle)

4. 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

5. 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

6. TRAINING INSTITUTIONS

1) Nagoya International Training Centre (NITC), JICA
2) universities and public institutes

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (75 hours).

No. 217

陶磁器開発・活用技術

CERAMICS DEVELOPMENT TECHNOLOGY

1. PURPOSE

The purpose of the course is to provide engineers or researchers presently engaged in the development work at research or educational institutions with knowledge and techniques ranging from the study of raw materials to the improved application technology for ceramics through scientific approaches.

2. DURATION

From April 19, 1993 to October 28, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this course, the emphasis is put on practical training and related lectures.

The main themes are:

1) raw materials
2) preparation of bodies
3) glaze
4) screen printing
5) firing

The participants will also have the chance to observe some of the famous areas for ceramic industries, during field trips.

5. QUALIFICATION OF APPLICANT

1) university graduate or equivalent, and have more than three year practical experience at educational or research institution related to ceramics
2) working at ceramic manufacturing plant as an engineer or institution of ceramic R & D as a researcher, and not be craftsman
3) between 25 and 40 years of age

6. TRAINING INSTITUTIONS

1) Nagoya International Training Centre (NITC), JICA
2) Government Industrial Research Institute, Nagoya (GIRIN)
3) Tajimi City Pottery Design and Technical Center
4) Institute for Comparative Pottery, Chukyo Junior College
5) other public institutions and private companies

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks (100 hours).

No. 218 包装技術

PACKAGING ENGINEERING

1. PURPOSE

The course aims at providing the participants with the opportunity to understand the Japan's current technology of packaging, especially focused on "Transport Packaging" and "Consumer (Food) Packaging", so as to contribute themselves to the economic and social development of the participating countries.

2. DURATION

From August 31, 1993 to October 24, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9) (One participant from one country in principle)

4. 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

5. QUALIFICATION OF APPLICANT

1) packaging engineer directly engaged in package industry at present
2) have more than three years of experience in the relevant field
3) university graduate or equivalent
4) under 40 years of age

6. TRAINING INSTITUTIONS

1) Tokyo International Center (TIC), JICA
2) Japan Packaging Institute (JPI)

7. REMARKS

ADVANCED INDUSTRIAL TECHNOLOGY

1. 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.

2. DURATION

From August 30, 1993 to July 24, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course consists of common subjects for all participants and individual training in laboratory. Each participant is to take one of the 33 subjects prepared by the following 13 institutes for their individual research.

The institutes are:

1)	National Research Laboratory of Metrology, NRLM	3 subjects
2)	Mechanical Engineering Laboratory, MEL	3 subjects
3)	National Institute of Materials and Chemical Research, NIMC	7 subjects
4)	National Institute of Bioscience and Human-Technology, NIBH	6 subjects
5)	Geological Survey of Japan, GSJ	1 subject
6)	National Institute for resources and Environment, NIRE	1 subject
7)	Electrotechnical Laboratory, ETL	2 subjects
8)	Government Industrial Research Development Laboratory, Hokkaido, GIDLH	2 subjects
9)	Government Industrial Research Institute, Tohoku, GIRIT	1 subject
10)	Government Industrial Research Institute, Nagoya, GIRIN	2 subjects
11)	Government Industrial Research Institute, Osaka, GIRIO	1 subject
12)	Government Industrial Research Institute, Chugoku, GIRIC	2 subjects
12)	Government Industrial Research Institute, Kyushu, GIRIK	2 subjects

5. 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

6. TRAINING INSTITUTIONS

1) Tsukuba International Centre (TBIC), JICA
2) Agency of Industrial Science and Technology, Ministry of International Trade and Industry

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks (100 hours).

ENERGY

エネルギー

No. 220 省エネルギー

ENERGY CONSERVATION

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. DURATION

From October 12, 1993 to December 2, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Thirteen (13) (One participant from one country in principle)

4. 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 technologies in Japan
3) energy conservation situation in major Japanese industries
4) industrial energy conservation technologies
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

5. 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

6. TRAINING INSTITUTIONS

1) Tokyo International Center (TIC), JICA
2) Agency of Natural Resources and Energy,
   Ministry of International Trade and Industry
3) Energy Conservation Center, Japan (ECC)

7. REMARKS

Country Reports will be highly utilized both for the selection of participants and for the Comparative Studies.

No. 221 エネルギー管理

ENERGY MANAGEMENT

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 the environmental pollution through proceeding the energy management effectively and add practical effect to the production activities.

2. DURATION

From January 24, 1994 to June 11, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this course, the emphasis is laid on the study of the subjects that will help participants to solve the problems in the field of energy management of their own countries practically and concretely.

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) in-plant training

5. QUALIFICATION OF APPLICANT

1) have energy management experience or will be in charge of energy management in near future
2) university graduate or equivalent
3) 35 years of age or less

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Kitakyushu international Techno-cooperative Association

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for 25 hours.

No. 222 水力発電 II

HYDRO-ELECTRIC POWER GENERATION II

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 Japan's hydro-electric power industry so that the participants would be able to play their greater role for further progress and advancement of hydro-electric power generation in their respective country.

2. DURATION

From May 11, 1993 to June 26, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The Course is formulated to cover both aspects of "Electrical/Mechanical Engineering" and "Civil Engineering" alternatively. In this year (Japanese fiscal 1993), electrical/mechanical engineering matters will be focused mainly.

The following are the major subjects this year:

1) outline of Japan's electric power industry
2) Japan's government policy and regulation relating to Japan's electric power industry
3) method of planning, designing, construction and operation & maintenance technique of hydro-power stations from the view point of electrical/mechanical engineering

5. QUALIFICATION OF APPLICANT

1) electrical and/or mechanical 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

6. 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

7. REMARKS

No. 223 石炭火力発電

OPERATION AND MAINTENANCE OF COAL-FIRED THERMAL POWER PLANTS

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. DURATION

From September 28, 1993 to November 24, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. 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) Japan's electric power industry
4) Japan's governmental policy and regulation concerned with coal-fired thermal electric power engineering

5. 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

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) Japan Electric Power Information Centre, Inc.
3) Electric Power Development Co., Ltd.

7. REMARKS

No. 224 原子力発電

NUCLEAR POWER GENERATION

1. 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.

2. DURATION

From January 10, 1994 to March 20, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

Major subjects in this course are as follows:

1) lectures
   - outline of nuclear power generation in Japan safety regulation and administration for commercial nuclear power plants
   - major system of boiling water reactor and pressurized water reactor
   - construction of nuclear power plant
   - operation and maintenance
2) exercise
   - operation and plant behaviour related to plant start-up, shutdown and accidents, etc. by using a compact simulator
   - maintenance and inspection (non-destructive test)

5. 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 yeas of age

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) Japan Electric Power Information Center, Inc. (JEPIC)
3) Japan Atomic Power Company (JAPC)
4) Agency of Natural Resources and Energy, Ministry of International Trade and Industry

7. REMARKS

ELECTRIC POWER MANAGEMENT II

1. 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.

2. DURATION

From September 9, 1993 to October 23, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11) (One participant from one country in principle)

4. 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

5. 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

6. 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.

No. 226 配電システム管理

ELECTRIC POWER DISTRIBUTION SYSTEM MANAGEMENT

1. PURPOSE

The purpose of the course is to provide the participants with the information concerning the administrative and technical aspects of Japan's electric power distribution system management so that the participants would be able to utilize the knowledge obtained from the course for the future development of this field in their countries.

Note: This course refers to distribution systems from secondary sides of distribution substations to service wires and does not cover transmission lines or interior wiring.
The voltage of the distribution lines is approximately from 6 KV to 22 KV in Japan.

2. DURATION

From August 31, 1993 to November 12, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7) (One participant from one country in principle)

4. 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.)

5. 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 45 years of age
3) technical university graduate or equivalent, and have more than five years of practical experience

6. TRAINING INSTITUTIONS

1) Osaka International Training Centre (OITC), JICA
2) Agency of Natural Resources and Energy
3) Japan Electric Power Information Center, Inc. (JEPIC)
4) Kansai Electric Power Co., Inc. (KEPCO)

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

COAL SCIENCE AND TECHNOLOGY

1. PURPOSE

The purpose of the training course is to provide participants with advanced knowledge and experience of coal exploration, exploitation, utilization and environmental engineering.

2. DURATION

From September 27, 1993 to December 8, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The course is devided into two sections of introductory and advanced content. 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 problems to study in the laboratories at Kyushu University under the supervision of instructors.

5. 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

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Kyushu University

7. REMARKS

COAL MINING AND PREPARATION

1. PURPOSE

The course aims at contributing itself 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. DURATION

From May 11, 1993 to July 18, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The course will consist of the following major subjects:

1) lectures
   - coal mining history of Japan and recent technology
   - coal mining industry policy and governmental administration in Japan
   - general and practical technology of coal mining, roadway drivage, coal preparation, central monitoring system, long wall mining, and environmental protection for coal mining
2) observation tours
   - under-ground collieries
   - open-cut mining site
   - manufacturers of related equipment
     (e.g. fun, pump, cooler, excavator, drum cutter)

5. QUALIFICATION OF APPLICANT

1) university / college graduate who have basic knowledge of coal mining or equivalent
2) mining engineer, preparation engineer or other engineer concerned with coal mining industry who are presently employed at one of the 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

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) Japan Technical Cooperation Center for Coal Resources Development (JATEC)

7. REMARKS

No. 229 原子力基礎実験

NUCLEAR TECHNOLOGY

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. DURATION

From May 11, 1993 to July 21, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. 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) thermoluminescent dosimeters, neutron measurement and radiography
B) reactor engineering (control rod calibration, reactor operation)

5. QUALIFICATION OF APPLICANT

1) university/college graduate in science or technology, or equivalent
2) working or going to work in organization concerned with nuclear technology fields
3) under 40 years of age

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) Japan Atomic Energy Research Institute (JAERI)

7. REMARKS

No. 230 原子力安全規制行政セミナー

SEMINAR ON NUCLEAR SAFETY AND REGULATION

1. PURPOSE

The purpose of the seminar is to see that lectures and study tours to radiation-using workshops and reactor facilities enable participants 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, and that opinions and information are exchanged between countries on matters concerning their immediate problems.

2. DURATION

From October 18, 1993 to November 14, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7) (One participant from one country in principle)

4. 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.

5. QUALIFICATION OF APPLICANT

be senior officer (section head or equivalent) in charge of national nuclear safety and regulation and have at least five years' experiences in the job

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) Nuclear Safety Bureau, Science and Technology Agency
3) Japan Atomic Industrial Forum

7. REMARKS

No. 231 地熱エネルギーアドバンス

GEOTHERMAL ENERGY (ADVANCED)

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 the available energy resources, considering environmental conditions.

2. DURATION

From August 16, 1993 to December 12, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

Participants are divided into five groups: geologists, geophysists, geochemists, drilling engineers and production engineers. All the participants will acuire 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) Geophysists:
   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

5. 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

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Geothermal Research Centre, Faculty of Engineering, Kyushu University
3) Hatchobaru Geothermal Power Station

7. REMARKS

No. 232 放射線安全管理実務者

RADIOLOGICAL PROTECTION FOR RADIATION SAFETY OFFICERS AT NUCLEAR FACILITIES

1. 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.

2. DURATION

From January 24, 1994 to March 3, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. 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) lectures
   A) basic knowledge for radiation protection
   B) environmental monitoring, personal dosimetry and radiation measuring instruments
2) laboratory exercises
   radiation measurement practice using Ion chamber, GM counter, ZnS (Ag) counter
3) field exercises
   maintenance and calibration of radiation monitoring instruments

5. 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 for one to five years
3) over 23 and under to 35 years of age

6. 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

7. REMARKS

COMMERCE AND TRADE

商業・貿易

No. 233 中小企業対策 II

MEASURES FOR SMALLER INDUSTRIES II

1. PURPOSE

The purpose of the course is to give the participants some hints and enable them to devise better measures for the promotion of small businesses in their countries, by introducing the history and the status quo of Japan's small businesses and the measures for their promotion.

2. DURATION

From January 6, 1994 to March 24, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course consists of common subjects for all participants and small group training.

The main themes are:

1) background of the Japanese economy
2) Japanese small and medium enterprises
   - sub contracting system, local industries, growing of SMEs, financing measures, management of SMEs, technological development, quality control, agra-economy

The small group training mainly covers:

1) promotive measures for production area
2) financing: bank (private) /small business finance cooperation

5. QUALIFICATION OF APPLICANT

1) university / college graduate, or equivalent
2) under 40 years of age, and occupational experience of more then six years in promotion of small business in governmental organization, financial institution, or cooperative association

6. TRAINING INSTITUTIONS

1) Osaka International Training Centre (OITC), JICA
2) Japan International Cooperation Center

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

No. 234 中小企業診断

CONSULTANCY SERVICE FOR SMALL INDUSTRIES

1. 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 in developing countries.

2. DURATION

From October 25, 1993 to March 3, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9) (One participant from one country in principle)

4. 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 have one week of practical training. They will be divided into two groups to conduct business diagnosis.

5. 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

6. 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 Small-and-Medium-Sized Enterprise Assistance Center
5) Aichi Institute of Technology
6) other related organizations

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

PRODUCTION MANAGEMENT (THEORY AND PRACTICE ON WORK IMPROVEMENT)

1. PURPOSE

The purpose of the training course is to provide participants with the opportunities to

1) understand technology and techniques accumulated in Kitakyushu area through its experience and research activities,
2) acquire the knowledge on higher productivity through on-the-job training and plant observations of Japanese factories,
3) introduce and utilize the acquired knowledge and techniques to solve their own problems of production.

2. DURATION

From October 18, 1993 to March 5, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The subjects covered in the course are:

1) productivity and control 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 mistake)
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 enterprize
16) CAD system
17) productivity improvement activity
18) basic production planning
19) employee education
20) 20 keys (items) to workplace improvement
21) QC New-7 Tools

5. 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

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Kitakyushu International Techno-cooperative Association

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for 25 hours.

No. 236 実践的総合生産性向上

PRODUCTIVITY MANAGEMENT

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.

2. DURATION

From April 12, 1993 to June 13, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10) (One participant from one country in principle)

4. 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

5. QUALIFICATION OF APPLICANT

1) official presently in charge of plant management in manufacturing sector in central or provincial governments or in local bodies, with five or more years of experience in this field
2) university graduate or equivalent
3) over 30 and under 40 years of age

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Japan Productivity Center (JPC)

7. REMARKS

No. 237 造船経営管理セミナー

SEMINAR ON SHIPBUILDING MANAGEMENT

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 in the developing countries.

2. DURATION

From September 20, 1993 to November 26, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7) (One participant from one country in principle)

4. 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. Another feature of the seminar is the participation in International Symposium on Transportation of Dangerous Goods by Sea and Inland Waterways.

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) applicability of IMO (International Maritime Organization) resolutions

5. 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

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) Maritime Technology and Safety Bureau, Ministry of Transport
3) Overseas Shipbuilding Cooperation Centre (OSCC)

7. REMARKS

No. 238 投資促進セミナー（1）（アジア諸国）

INVESTMENT PROMOTION SEMINAR (1) (ASIAN COUNTRIES)

1. PURPOSE

Direct investments from developed nations, including grants and technical transfers, are effective for stimulating industrial development of countries facing difficulties in local procurement and securing essential factors such as capital and technology. In addition improvement of investment promotion programmes requires the cultivation of capable personnel in relevant positions of authority.

This seminar is designed primarily for government officials of Asian countries, who are responsible for soliciting investments from overseas sources. Since it is essential, in receiving such investments, to understand the investor nation, a case emphasis will also be put on understanding the comprehensive or total background of Japan, including its business practices and organizational structures in Japan.

2. DURATION

From July 8, 1993 to August 11, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The main theme of this seminar is to clarify and analyze the current situation and problems of his/her own country's investment promotion.

5. QUALIFICATION OF APPLICANT

1) university graduate or equivalent
2) under 40 years of age
3) official who belongs to governmental or semi governmental organizations (e.g. investment promotion organization) with more than five years of practical experience in the administration of overseas investment

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) World Trade Centre, Inc. (WTC)

7. REMARKS

This course is organized for Asian Countries.

INVESTMENT PROMOTION SEMINAR (2) (LATIN AMERICAN COUNTRIES) II

1. PURPOSE

Direct investments from developed nations, including grants and technical transfers, are effective for stimulating industrial development of countries facing difficulties in local procurement and securing essential factors such as capital and technology. In addition, improvement of investment promotion programmes requires the cultivation of capable personnel in relevant positions of authority.

This seminar is designed primarily for government officials of the countries of Latin America, who are responsible for soliciting investments from overseas sources. Since it is essential, in receiving such investments, to understand the investor nation, a case emphasis will also be put on understanding the comprehensive or total background of Japan, including its business practices and organizational structures in Japan.

2. DURATION

From September 2, 1993 to October 16, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The main themes of this seminar are:

1) analysis of the current situation and problems of his/her own country's investment promotion
2) research paper writing on "Selection of Potential Japanese Investors"

5. QUALIFICATION OF APPLICANT

1) university graduate or equivalent
2) under 40 years of age
3) official who belongs to governmental or semi governmental organizations (e.g. investment promotion organization) with more than five years of practical experience in the administration of overseas investment

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) World Trade Center of Japan, Inc. (WTC)

7. REMARKS

This course is organized for Latin American Countries.

TRADE PROMOTION SEMINAR (1) (ASIAN AND PACIFIC COUNTRIES)

1. PURPOSE

The main purpose of the seminar is to inform the participants of recent knowledge and background information in the field of international trade, particularly emphasizing the successful cases made by the Japanese enterprises and organizations, so that the participants can find out effective measures to expand their own export in the future.

2. DURATION

From April 22, 1993 to June 5, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The main themes of this seminar are:

1) acquisition of the accurate knowledge and necessary information about the successful development of trade by Japanese enterprises
2) analysis of the current situation and problems of his/her own country's trade promotion
3) research paper writing on "How to increase/promote my country's export - A study of Japanese Market"

5. QUALIFICATION OF APPLICANT

1) university graduate or equivalent
2) under 40 years of age
3) senior official who belongs to governmental or semi governmental organizations (e.g. trade promotion organization) with more than five years of practical experience in the administration of international trade

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) World Trade Centre of Japan, Inc. (WTC)

7. REMARKS

This course is organized for Asian and Pacific Countries.

TRADE PROMOTION SEMINAR (2) (AFRICAN, MIDDLE-EASTERN AND CARIBBEAN COUNTRIES) II

1. PURPOSE

The main purpose of this seminar is to inform the participants of recent knowledge and background information in the field of international trade in connection with Japan and the Japanese, directly and indirectly stressing some successful export promotion cases executed by Japanese enterprises and organizations. Through this knowledge and information, the participants can figure out effective measures to expand the volume of their own exports in the future.

2. DURATION

From October 26, 1993 to December 9, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

The main themes of this seminar are:

1) acquisition of the accurate knowledge and necessary information about the successful development of trade by Japanese enterprises
2) analysis of situation/problems of his/her own country's trade promotion
3) research paper writing on "How to Penetrate into Japanese Market - Improvement of Product or Selection of Suitable Distribution Channels"

5. QUALIFICATION OF APPLICANT

1) university graduate or equivalent
2) senior official who belongs to governmental or semi governmental organizations (e.g. trade promotion organization) with more than five years of practical experience in the administration of international trade
3) under 40 years of age

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) World Trade Centre of Japan, Inc. (WTC)

7. REMARKS

This course is organized for African, Middle-Eastern and Caribbean Countries.

No. 242 貿易実戦指導者

FOREIGN TRADE PRACTICE FOR LEADERS

1. PURPOSE

The purpose of the course is to provide leading officers presently in charge of foreign trade administration in their respective countries with practical knowledge required for the smooth performance of foreign trade.

The participants are given lectures on general views about theory, policy and system underlying the practice on top of foreign trade practice itself. The programme includes observations of various trading firms and trade-related organizations for the sake of "learning-on-the-spot" and doing individual research.

2. DURATION

From August 31, 1993 to December 3, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11) (One participant from one country in principle)

4. 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.

Lecture and practical training

- theory, policy and structure of trade
- business practice of trade transaction
- function and system of customs
- foreign exchange and foreign trade finance
- marine insurance
- transportation
- dispute and settlement
- case study on trade business

5. 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

6. 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

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for a half month (50 hours).

No. 243 国際知的財産権

INTELLECTUAL PROPERTY RIGHTS IN TECHNOLOGY TRANSFERS

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, in developing countries. The participants of this course will undergo the training of highly specialized contents such as legal practices regarding technology transfer and legislation regarding intellectual properties in Japan. It is hoped that this training will be of help not only for fostering specialists in technology trade but also for developing and promoting legal systems for the protection of intellectual properties.

2. DURATION

From July 8, 1993 to October 9, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course consists of subjects which introduce Japanese cases, tutorial studies and discussions including final Symposium.

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
   - Participants are requested to report on the hot issue regarding the trend of intellectual property rights in their countries

5. QUALIFICATION OF APPLICANT

1) senior administrator directly in charge of registration of intellectual property rights or the related field in their government, with practical experience of at least five years
2) under 40 years of age

6. TRAINING INSTITUTIONS

1) Osaka International Training Centre (OITC), JICA
2) Kyoto Comparative Law Center

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for one week (25 hours).

TOURISM

観　　光

No. 244

総合観光セミナーII

SEMINAR ON COMPREHENSIVE TOURISM II

1. PURPOSE

The purpose of this seminar is to provide a more comprehensive understanding of tourism by sharing the Japanese experience concerning tourism development and promotion with participating countries, and thus contribute to investigating a more sound development of tourism in participating countries.

2. DURATION

From October 5, 1993 to November 21, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eighteen (18) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this seminar, the emphasis is put on introduction of Japanese experience in various aspects of tourism promotion including preservation of tourism resources.

The following major subjects will be covered in the seminar.

1) tourism policy and administration in Japan
2) tourism industries and international tourism promotion in Japan
3) current situation and problems of international tourism promotion in participating countries
4) preservation of natural and cultural tourism resources and tourism promotion

5. 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) between 25 and 35 years of age

6. 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)

7. REMARKS

HUMAN RESOURCES

人 的 資 源

No. 245 日本語専修 (A)

INTENSIVE JAPANESE LANGUAGE (A)

1. PURPOSE

The purpose of this course is to provide Japanese language training for those who are directly or indirectly related to technical cooperation project of JICA, so that they will

1) facilitate better communication with JICA experts in Japanese
2) promote smoother and more effective execution of JICA cooperation projects
3) understand Japanese people, society and culture

2. DURATION

From October 28, 1993 to May 16, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7) (One participant from one country in principle)

4. 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

5. QUALIFICATION OF APPLICANT

1) presently engaged directly or indirectly in JICA's cooperation programmes
2) university graduate or equivalent
3) under 30 years of age

6. TRAINING INSTITUTIONS

Okinawa International Centre (OIC), JICA

7. REMARKS

No. 246 日本語専修 (B)

INTENSIVE JAPANESE LANGUAGE (B)

1. PURPOSE

The purpose of this course is to provide Japanese language training for those who are directly or indirectly related to technical cooperation project of JICA, so that they will

1) facilitate better communication with JICA experts in Japanese
2) promote smoother and more effective execution of JICA cooperation projects
3) understand Japanese people, society and culture

2. DURATION

From October 28, 1993 to May 16, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7) (One participant from one country in principle)

4. 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

5. QUALIFICATION OF APPLICANT

1) presently engaged directly or indirectly in JICA's cooperation programmes
2) university graduate or equivalent
3) under 30 years of age

6. TRAINING INSTITUTIONS

Okinawa International Centre (OIC), JICA

7. REMARKS

No. 247 サウンドスライド制作

SOUND SLIDE PRODUCTION
(PRODUCTION AND USE OF AUDIO VISUAL MEDIA)

1. PURPOSE

The purpose of this corse are

1) to introduce the participants who are working or expected to work in production or utilization of sound slides to basic theories and techniques of audio visual media for the human resources development, and
2) to enhance the effective application of sound slides for human resources development activities by the participants' organizations.

2. DURATION

From May 27, 1993 to September 12, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this course the emphasis is put on slide production but other audio visual media including video and OHP production is also taught. Practice by all participants is important in the course.

The main subjects are as follows,

1) basic photographing
2) audio production methodology
3) basic slide production
4) slide production methodology
5) sound slide production methodology
6) production of multi media package
7) multi media package presentation

5. QUALIFICATION OF APPLICANT

1) have one to three years of experience in media production for educational/instructional or public information purposes
2) university graduate or equivalent
3) under 35 years of age

6. TRAINING INSTITUTIONS

Okinawa International Centre (OIC), JICA

7. REMARKS

No. 248 ビデオ制作

VIDEO PRODUCTION (BASIC)

1. PURPOSE

The course is designed to help participants acquire fundamental knowledge and skills of video production through practical training by operating video equipment on their own.

2. DURATION

From September 9, 1993 to February 25, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this course, the emphasis is put on the video program production.

The main themes are:

1) fundamentals of video program production
2) video program production I, II and final production
3) animation production

5. QUALIFICATION OF APPLICANT

1) have two to five years of experience in producing video programs for educational and training use, and is expected to become a director
2) university graduate or equivalent
3) under 35 years of age

6. TRAINING INSTITUTIONS

Okinawa International Centre (OIC), JICA

7. REMARKS

No. 249 視聴覚技術

AUDIO VISUAL TECHNOLOGY

1. PURPOSE

The purposes of this course are

1) to introduce basic theory and technique of audio visual media in human resources development field to the participants who are working in production or utilization of the audio visual media.
2) to enhance the effective application of audio visual media in human resources development activities by the participants' organizations.

2. DURATION

From February 17, 1994 to June 12, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this course, the emphasis is put on the basic production skills.

The main themes are:

1) basic theories of Audio Visual Technology
2) basic photography
3) computer graphics and Desk Top Publishing
4) basic video production
5) Sound Slide production

5. QUALIFICATION OF APPLICANT

1) person who may play a leading role in the field or planning, production and utilization of educational/ instructional materials with two to six years of experience in this field
2) university graduate or equivalent
3) not more than 40 years of age

6. TRAINING INSTITUTIONS

Okinawa International Centre (OIC), JICA

7. REMARKS

No. 250 科学教育実技

PRACTICE OF SCIENCE EDUCATION

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 (university) and science education centers to understand the essentials of the latest technology for teaching science.

After completion of this course, participants will be able to use the simple science equipment according to the basic principles of science education and formulate suitable test questions for science activities.

2. DURATION

From September 16, 1993 to November 8, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6) (One participant from one country in principle)

4. 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

5. QUALIFICATION OF APPLICANT

1) be presently engaged in teaching science at a secondary school or investigating the same at an institute/university/college.
   be in a promising position in science education.
   Administrative officers are not qualified for this programme.
2) university graduates or equivalent
3) be not more than 35 years of age.

6. 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

7. REMARKS

No. 251 監督者訓練専門家セミナーII

SEMINAR FOR TRAINING SPECIALIST FOR SUPERVISORS II

1. PURPOSE

The seminar is designed to contribute to the development of the training for supervisors, engaged in planning and conducting the training for foremen and other first line supervisors 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. DURATION

From May 24, 1993 to July 18, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10) (One participant from one country in principle)

4. 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.

5. QUALIFICATION OF APPLICANT

1) university graduate or equivalent
2) training specialist concerned with planning and conducting the training for foremen and other first line supervisors of manufacturing industries
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

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Human Resources Development Bureau, Ministry of Labour

7. REMARKS

No. 252 職業訓練管理セミナー

SEMINAR ON TRAINING MANAGEMENT IN VOCATIONAL TRAINING INSTITUTIONS

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. DURATION

From August 23, 1993 to October 17, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10) (One participant from one country in principle)

4. 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

5. 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

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Human Resources Development Bureau, Ministry of Labour

7. REMARKS

No. 253 職業能力開発行政セミナー

SEMINAR ON HUMAN RESOURCES DEVELOPMENT ADMINISTRATION

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. DURATION

From November 8, 1993 to December 13, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Fifteen (15) (One participant from one country in principle)

4. 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

5. 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

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Human Resources Development Bureau, Ministry of Labour

7. REMARKS

HIGH TECHNOLOGY RESEARCH

A: STUDY ON MIRROR FINISHING BY DIAMOND AND CBN GRINDING WHEEL

B: BRAZING OF CERAMICS AND METALS AND ITS EVALUATION

1. PURPOSE

The purpose of this course is to provide participants with an opportunity for studying the advanced technology of the specialized subjects in the modality of Japanese research work, so as to contribute to the improvement of their proficiency.

2. DURATION

From July 26, 1993 to February 20, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course basically consists of individual studies with professors' advice on respective fields. It is expected to enhance the learning environment and opportunities.

5. QUALIFICATION OF APPLICANT

1) presently engaged in [A] mechanical engineering and machining engineering [B] mechanical or material engineering field at university, research institute or vocational training college
2) graduate from faculty of engineering at university or graduate school
3) have occupational experience in this field for at least five years for bachelor degree holder, three years for master degree holders
4) not more than 35 years of age
5) have appropriate knowledge on [A] precision engineering [B] mechanical engineering
6) have specific knowledge on the theme mentioned and be able to study of his own accord

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Institute of Vocational Training, Employment Promotion Corporation

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for four weeks (100 hours).

VOCATIONAL TRAINING INSTRUCTORS (INFORMATION AND COMPUTER ENGINEERING)

1. PURPOSE

The purpose of this course is placed at providing participants engaged in vocational/technical profession with requisite technology and information available in Japan in the form of group training, so that they could share the outcomes of the training to the enhancement of technical standard and productivity in their respective countries.

2. DURATION

From June 7, 1993 to March 20, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course is conducted in combination of lecture and practice and mainly covers:

1) basics of software
2) basics of hardware
3) software design
4) information processing engineering
5) logical circuit

5. QUALIFICATION OF APPLICANT

1) presently engaged in information and computer engineering field at university, research institute or vocational training center as professor or teacher
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

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Institute of Vocational Training, Employment Promotion Corporation

7. 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)

1. PURPOSE

The purpose of this course is placed at providing participants engaged in vocational/technical profession with requisite technology and information available in Japan in the form of group training, so that they could share the outcomes of the training to the enhancement of technical standard and productivity in their respective countries.

2. DURATION

From June 7, 1993 to March 20, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course is conducted in combination of lecture and practice and mainly covers:

1) production system of construction
2) spatial structures
3) building materials
4) seismic engineering
5) pre-fabricated construction system

5. QUALIFICATION OF APPLICANT

1) presently engaged in architectural engineering field at university, research institute or vocational training center as professor or teacher
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

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Institute of Vocational Training, Employment Promotion Corporation

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for five weeks (125 hours).

VOCATIONAL TRAINING INSTRUCTORS (ELECTRONIC ENGINEERS) II

1. PURPOSE

The purpose of this course is placed at providing participants engaged in vocational/technical profession with requisite technology and information available in Japan in the form of group training, so that they could share the outcomes of the training to the enhancement of technical standard and productivity in their respective countries.

2. DURATION

From June 7, 1993 to March 20, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eleven (11) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course is conducted in combination of lecture and practice and mainly covers:

1) analogue and digital electronic circuits
2) power electronic engineering
3) automatic control
4) optical electronic
5) electro magnetic wave propagation
6) physics of semi-conductor devices

5. QUALIFICATION OF APPLICANT

1) presently engaged in electronic engineering field at university, research institute or vocational training center as professor or teacher
2) university graduate with at least three years of occupational experience in this field
3) not less than 25 and not more than 40 years of age

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Institute of Vocational Training, Employment Promotion Corporation

7. 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)

1. PURPOSE

The purpose of this course is placed at providing participants engaged in vocational/technical profession with requisite technology and information available in Japan in the form of group training, so that they could share the outcomes of the training to the enhancement of technical standard and productivity in their respective countries.

2. DURATION

From June 7, 1993 to March 20, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course is conducted in combination of lecture and practice and 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

5. QUALIFICATION OF APPLICANT

1) presently engaged in mechanical engineering field at university, research institute or vocational training center as professor or teacher
2) university graduate with at least three years of occupational experience in this field
3) not less than 25 and not more than 40 years of age

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Institute of Vocational Training, Employment Promotion Corporation

7. 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)

1. PURPOSE

The purpose of this course is placed at providing participants engaged in vocational/technical profession with requisite technology and information available in japan in the form of group training, so that they could share the outcomes of the training to the enhancement of technical standard and productivity in their respective countries.

2. DURATION

From June 7, 1993 to March 20, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course is conducted in combination of lecture and practice and mainly covers:

1) machining technology
2) precision measurement
3) deformation on processing
4) numerical control equipment
5) material testing

5. QUALIFICATION OF APPLICANT

1) presently engaged in information and computer engineering field at university, research institute or vocational training center as professor or teacher
2) university graduate with at least thee years of occupational experience in this field
3) not less than 25 and not more than 35 years of age

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Institute of Vocational Training, Employment Promotion Corporation

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for five weeks (125 hours).

VOCATIONAL TRAINING INSTRUCTORS (PRODUCTS DESIGN AND WOOD WORK ENGINEERING)

1. PURPOSE

The purpose of this course is placed at providing participants engaged in vocational/technical profession with requisite technology and information available in Japan in the form of group training, so that they could share the outcomes of the training to the enhancement of technical standard and productivity in their respective countries.

2. DURATION

From June 7, 1993 to March 20, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course is conducted in combination of lecture and practice and mainly covers:

1) properties of wood
2) woodworking system in production
3) new artificial materials
4) practice on CAD
5) digital image processing

5. QUALIFICATION OF APPLICANT

1) presently engaged in industrial design engineering field at university, research institute or vocational training center as professor or teacher
2) university graduate with at least three years of occupational experience in this field
3) not less than 25 and not more than 40 years of age

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Institute of Vocational Training, Employment Promotion Corporation

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for five weeks (125 hours).

SCIENCE AND CULTURE

科学·文化

No. 256 リモート・センシング技術（基礎）

REMOTE SENSING TECHNOLOGY (FUNDAMENTAL)

1. 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.

2. DURATION

From May 11, 1993 to July 15, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10) (One participant from one country in principle)

4. 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

5. QUALIFICATION OF APPLICANT

1) university graduate, or equivalent with a 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

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) Remote Sensing Technology Center of Japan

7. REMARKS

No. 257

酵素工学

ENZYME TECHNOLOGY

1. PURPOSE

The purpose of the course is to introduce the participants knowledge and techniques required for microbial enzyme technology such as a cultivation of microorganisms, production and purification of enzymes properties and action of enzymes, through lectures, experiments and observations. (Note: The course is focused on introducing fundamental knowledge and technology of microbial enzyme itself, and not intended to provide knowledge and techniques on food processing by its application.)

2. DURATION

From April 8, 1993 to October 3, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course consists of common subjects for all participants and individual research work at laboratory.

Each participants is to takes 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

5. 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

6. TRAINING INSTITUTIONS

1) Osaka International Training Centre (OITC), JICA
2) Osaka Municipal Technical Research Institute (OMTRI)

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (50 hours).

No. 258 アイソトープ・放射線の医学・生物学利用

MEDICAL AND BIOLOGICAL APPLICATION OF RADIATION AND RADIOISOTOPES

1. PURPOSE

The purpose of this course is to give the participants fundamental and practical knowledge about radiation biology and to transfer the latest techniques available in Japan in current topics of radiation biology to the participants through lectures, practice, discussion and study tours. Particular emphasis will be placed on the practical application of radiobiological knowledge and techniques.

2. DURATION

From August 24, 1993 to October 3, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

There are four subjects to be taken up in this course, and in each year, one of these subjects is treated in the following order.

a) Radiation Health Science
b) Nuclear Medicine
c) Radiation Biology
d) Radiotherapy

The subject for this year (Japanese fiscal 1993) is "Radiation Biology".
(In Japanese fiscal 1994, "Radiotherapy" will be taken up.)

The course mainly consists of lectures, practices, and observation tours.
Special focus is put on the introduction of Japanese technology in radiation biology.
Participants are expected to have some experiments during the course.

5. QUALIFICATION OF APPLICANT

1) have occupational experience of several years in radiation biology and its related field either at research or educational institution or at governmental organization
2) under 40 years of age, and have some experiences in radiation biology

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) National Institute of Radiological Sciences
3) Nuclear Safety Research Association

7. REMARKS

No. 259 バイオテクノロジー

BIOTECHNOLOGY

1. 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.

2. DURATION

From March 22, 1994 to August 7, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. 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
   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.

5. 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

6. TRAINING INSTITUTIONS

1) Hyogo International Centre (HIC), JICA
2) Faculty of Agriculture, Kobe University
3) Biotechnology Laboratory, Hyogo Prefectural Agricultural Institute

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for two weeks (45 hours).

MEDICAL TREATMENT

保健・医療

TUBERCULOSIS CONTROL II

1. 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.

2. DURATION

1) The first phase in Japan:
   From June 14, 1993 to October 17, 1993 (from the arrival date to the departure date)
2) The second phase in the third country (Korea or Malaysia):
   From October 17, 1993 to November 2, 1993 (from the arrival date to the departure date) (This phase in the third country will be jointly managed by WHO/WPRO and the Research Institute of Tuberculosis/JATA)

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eighteen (18) (One participant from one country in principle)

4. 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

5. 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

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association

7. 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.

No. 261 結核対策指導者

TUBERCULOSIS CONTROL FOR ADMINISTRATIVE MEDICAL OFFICERS

1. PURPOSE

The purpose of this course is to build up the ability of the participants to formulate a national tuberculosis programme, to set up strategy for implementation of the programme and to evaluate the programme though lectures, discussions and observation tours, and also by exchange of experiences and views with the participants from other countries, to contribute to the strengthening of the programmes of the countries concerned.

2. DURATION

From May 10, 1993 to June 27, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course aims at building up the abilities to:

1) make a modification plan for the programme based on the deficiencies and shortcomings as identified by evaluation
2) evaluate the on-going national tuberculosis programme in their own country
3) assess the epidemiological status of tuberculosis and its time trend in their own country
4) incorporate new knowledge and technology of tuberculosis control into their own national programme

5. QUALIFICATION OF APPLICANT

1) a medical officer who is in charge of a tuberculosis control programme at a certain administrative level, most preferably an ex-participant of group training course in tuberculosis control with about five years field experience after the previous course
2) not more than 55 and not less than 35 years of age

6. TRAINING INSTITUTIONS

1) Hachioji International Training Centre (HITC), JICA
2) Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association

7. 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.

No. 262 結核対策細菌技術

LABORATORY WORKS FOR TUBERCULOSIS CONTROL

1. PURPOSE

The purpose of the course is to educate the leaders of laboratory works on training methods and to promote nationwide tuberculosis control programmes in the developing countries.

2. DURATION

From September 27, 1993 to February 13, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this training course, the emphasis is placed on the management and evaluation of TB laboratory system, importance of bacteriological examination such as case-finding in tuberculosis control programmes, how to examine staining method of mycobacteria, the way to isolate culture from specimens of tuberculosis patients, the sensitivity test for anti-tuberculosis drugs, the identification of mycobacterium tuberculosis from other mycobacteria, etc.

5. QUALIFICATION OF APPLICANT

1) a senior technician or a medical doctor responsible for the management of laboratory works in TB control programme in the region/country and the training of health personnel in laboratory works for tuberculosis control
2) not more than 50 and not less than 26 years of age

6. TRAINING INSTITUTIONS

1) Hachioji International training Centre (HITC), JICA
2) Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association

7. REMARKS

Those whose tuberculin test is negative are advised to get BCG vaccination before departure from their countries.

CLINICAL ONCOLOGY II

1. 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.

2. DURATION

From August 31, 1993 to November 21, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Ten (10) (One participant from one country in principle)

4. 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

5. 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

6. TRAINING INSTITUTIONS

1) Tokyo International Center (TIC), JICA
2) National Cancer Center (NCC)

7. REMARKS

EARLY GASTRIC CANCER DETECTION AND RELATED DIGESTIVE TUMORS II

1. 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.

2. DURATION

From January 10, 1994 to March 10, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Sixteen (16) (One participant from one country in principle)

4. 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, radiodiagnosis 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

5. 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

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) Foundation for Detection of Early Gastric Carcinoma

7. REMARKS

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

1. PURPOSE

The purpose of the course is to provide the middle level managers of the health services in developing countries, with the information on:

1) natural history of the 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 mentioned diseases and to supervise or guide the implementation of control measures in respective countries

2. DURATION

From June 21, 1993 to August 2, 1993

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Twelve (12) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

With regard to the diseases such as AIDS, ATL, and HB & HC, the course is conducted in the form of lectures, discussions, film-showings, practice and field trips.

Participants are expected to:

1) study natural histories of the mentioned diseases particularly with the 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 respective countries.

5. QUALIFICATION OF APPLICANT

1) a medical doctor and, at the same time, a 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

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Agency for Cooperation in International Health
3) Kumamoto National Hospital

7. REMARKS

No. 266 感染症患者臨床研修

CLINICAL TRAINING FOR PATIENTS CARE OF INFECTIOUS DISEASES

1. PURPOSE

The purpose of this training course is to provide the participants with better knowledges and skills to diagnose, examine and treat infectious disease through practical programme and lecture.

2. DURATION

From January 10, 1994 to March 30, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This course will be conducted in the form of practical programme, 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) advance knowledge on infectious diseases
2) be able to diagnose infectious disease correctly
3) be able to examine patients with infectious diseases adequately
4) be able to treat patients with infectious diseases appropriately
5) be able to perform disinfection and aseptic techniques
6) be able to apply the knowledge to medical practice after returning to their respective countries

5. QUALIFICATION OF APPLICANT

1) licensed physician authorized by his/her government, and have a clinical experience of more than three years
2) between 27 and 32 years of age

6. TRAINING INSTITUTIONS

1) Tokyo International Center (TIC), JICA
2) National Medical Center Hospital

7. REMARKS

No. 267 感染症診断の技術と管理

MANAGEMENT AND TECHNOLOGY IN MICROBIOLOGICAL LABORATORY DIAGNOSIS

1. 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.

2. DURATION

From November 1, 1993 to April 17, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Nine (9) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this course, the emphasis is put on the practical exercise in laboratory.

The subjects covered in the course are:

basic lectures

1) production of antiserum, antigen and toxin
2) serological diagnosis of toxic diseases
3) quality control of antisera, antigens an toxins
4) arrangement of bacteriological culture media
5) quality control of biological products
6) safety control of microbiological experiments
7) use of reagents for diagnosis of infectious diseases
8) delivery system of diagnostic immunosera, culture media, diagnostic antisera and other reagents
9) bacteriology
10) virus
11) antibiotics sensitivity test
12) toxity test
13) food hygienic test
14) water hygienic test

special lectures

1) control of infectious diseases in developing countries
2) some aspects on reagent bacterial infectious diseases
3) supply of reagents for control of infectious diseases
4) bacterial toxins
5) official approval for vaccine
6) management of reagents and culture media

5. QUALIFICATION OF APPLICANT

1) a medical doctor or specialized in pharmacology, agriculture, or biology, and at the same time, managers of middle level or above, in the related fields to the course
2) 45 years of age or less

6. 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-Cero-Therapeutic Research Institute

7. REMARKS

A compulsory intensive Japanese language course will be conducted prior to the technical training for 95 hours.

No. 268 上級微生物病研究

ADVANCED MICROBIAL DISEASES STUDY

1. 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.

2. DURATION

From September 2, 1993 to July 30, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Six (6) (One participant from one country in principle)

4. 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 bacteriology and serology
2) department of immunochemistry
3) department of preventive medicine
4) department of protozoology and parasitology
5) department of pathology
6) department of virology
7) department of tumor virology
8) department of microbial genetics
9) department of tuberculosis research (bacterial toxinology)
10) department of medical genetics
11) department of immunoregulation
12) department of molecular immunology
13) department of science for laboratory animal experimentation

5. QUALIFICATION OF APPLICANT

1) master or doctor degree or equivalent knowledge for majoring in microbial diseases; or ex-participant of JICA Group Training Course in Microbial Diseases Study
2) under 45 years of age

6. TRAINING INSTITUTIONS

1) Osaka International Training Centre (OITC), JICA
2) Research Institute for Microbial Diseases, Osaka University

7. REMARKS

PEDIATRICS AND PEDIATRIC SURGERY

1. 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.

2. DURATION

From February 14, 1994 to June 19, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Five (5) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

This training course mainly consists of two parts; introductory lectures attended by all participants and individual clinical exercise (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

5. 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

6. TRAINING INSTITUTIONS

1) Tokyo International Centre (TIC), JICA
2) National Children's Hospital

7. REMARKS

No. 270 小児麻痺根絶計画の理論と実際

SEMINAR ON POLIO ERADICATION, ITS THEORY AND PRACTICE

1. PURPOSE

The purpose of this course is to provide the middle level managers of the health services in developing countries, with information on:

1) analysis of history of the past polio eradication programmes and elements needed for the success of the programmes,
2) according to 1), setting-up of practical eradication methodology and management of field programme (surveillance, diagnosis, vaccination, etc.), and
3) review of global eradication programmes, especially the programme in WHO Western Pacific Region.

2. DURATION

From January 17, 1994 to March 7, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Seven (7) (One participant from one country in principle)

4. MAIN FEATURES OF CURRICULUM

In this seminar, the emphasis is put on report presentation of polio eradication plan in each participant' country through discussions among participants and lectures and field survey excercise.

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) laboratory diagnosis
7) group discussion and study
8) presentation and discussions of Country Report

5. QUALIFICATION OF APPLICANT

1) a medical doctor and at the same time, a manager responsible for the national EPI and/or polio eradication programme or a person of equivalent position
2) 50 years of age or less

6. TRAINING INSTITUTIONS

1) Kyushu International Centre (KIC), JICA
2) Agency for Cooperation in International Health

7. REMARKS

No. 271 新生児乳児マススクリーニング検査技術

TECHNOLOGY FOR NEONATAL AND INFANTILE SCREENING

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. DURATION

From November 18, 1993 to February 14, 1994

3. TOTAL NUMBER OF PARTICIPANTS TO BE RECEIVED

Eight (8) (One participant from one country in principle)

4. 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

5. 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

6. TRAINING INSTITUTIONS

1) Hokkaido Branch Office, JICA
2) Sapporo City Institute of Public Health