80

健康診断書
CERTIFICATE OF HEALTH (to be completed by the examining physician)

日本語又は英語により明瞭に記載すること。
Please fill out (PRINT/TYPE) in Japanese or English. Do not leave any items blank.

氏名 Name：＿＿＿＿＿＿＿＿, ＿＿＿＿＿＿＿＿　□男 Male □女 Female　生年月日 Date of Birth：　年齢 Age：
Family name, First name Middle name

1．身体検査
Physical Examinations

(1) 身　長 Height＿＿＿＿cm　体　重 Weight＿＿＿＿kg

(2) 血　圧 Blood pressure＿＿＿＿mm/Hg～＿＿＿＿mm/Hg　血液型 Blood Type

ABO	RH	+ / −

脈拍数 Pulse Rate ＿＿＿/min　□整 regular □不整 irregular

(3) 視　力 Eyesight：(R)＿＿＿＿(L)＿＿＿＿ 裸眼 without glasses　(R)＿＿＿＿(L)＿＿＿＿ 矯正 with glasses or contact lenses

(4) 聴　力 Hearing：□正常 normal □低下 impaired　言　語 speech：□正常 normal □異常 impaired

2．申請者の胸部について，聴診とX線検査の結果を記入してください。X線検査の日付も記入すること（6ヶ月以上前の検査は無効。）
Please describe the results of physical and X-ray examinations of applicant's chest x-ray (X-ray taken more than 6 months prior to the certification is NOT valid).

肺 lung：□正常 normal Date＿＿＿＿＿＿ □異常 impaired
Film No.

心臓 Cardiomegaly：□正常 normal □異常 impaired
↓
異常がある場合 心電図 If impaired: Electrocardiograph □正常 normal □異常 impaired

Describe the condition of applicant's lung.

3．現在治療中の病気 Disease Treated at Present　□Yes (Disease:＿＿＿＿＿＿＿＿) □No

4．既往症
Past history : Please indicate with + or − and fill in the date of recovery.

Tuberculosis……□(　.　.　)　Malaria……□(　.　.　)　Measles……□(　.　.　)
Epilepsy……□(　.　.　)　Kidney Disease……□(　.　.　)　Heart Diseases……□(　.　.　)
Diabetes……□(　.　.　)　Drug Allergy……□(　.　.　)　Psychosis……□(　.　.　)
Functional Disorder in extremities……□(　.　.　)　Others……□(　.　.　)

5．検　査 Laboratory tests
検　尿 Urinalysis:glucose(　), protein (　), occult blood (　)・検便　Feces: Parasite(egg of parasite) (+,−)

WBC count：＿＿＿x10^3/μl, RBC：＿＿＿x10^6/μl, Hemoglobin:＿＿g/dl, ALT (GPT):＿＿＿u/l,

6．診断医の印象を述べて下さい。
Please describe your impression.

7．志願者の既往歴，診察・検査の結果から判断して，現在の健康の状況は充分に留学に耐えうるものと思われますか？
In view of the applicant's history and the above findings, is it your observation his/her health status is adequate to pursue studies in Japan ?
Yes □　No □

Date(日付):

Physician's Name in Print(医師氏名):　Signature(署名):

Office/Institution(検査施設名):

Address(所在地)：

Appendix

Value of Letter Grades

A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
F	0.0

How to calculate your GPA

If GPA is not indicated on your transcript, take the value of the grade earned and multiply by the number of credits earned for each course. Add "total value" and divide by the "total number of credits" earned to get GPA.

Example:

grade	value		# of credits		total value
A	4.0	x	3	=	12.00
B-	2.7	x	4	=	10.80
A-	3.7	x	3	=	11.10
C+	2.3	x	3	=	6.90
total			13	/	40.80
GPA				=	**3.14**

ANNEX II: Instructions for the Preparation of Inception Report

The Inception Report should be originally written by the applicant herself/himself and typewritten including items listed below. Applicants are requested to follow strictly the technical instruction shown in the next page of this General Information. **It is mandatory to record the Inception Report on the electronic medium such as CD or USB memory and bring it to Japan.**
IISEE will request the accepted applicants to revise Inception Report, if necessary, by adding the missing information etc. during preliminary phase. Deadline for the re-submission is set at the beginning of Sep. 2013. At the early stage of the course (Oct. 2013) these applicants will be requested to conduct a presentation about Inception Report. Therefore, it is necessary for these applicants who receive the noticeof acceptance to start preparing Power Point file for presentation.

Inception Report should include all of the followings:

for Seismology(S) group

1. Geographic and geo-scientific information of your country with Maps (Tectonics, Active Faults, Seismicity, Macro-zoning study etc.).
2. Damaging Earthquakes or Tsunami (hypocenter, magnitude, isoseismals, surface faulting, damage, casualties), Catalogs, photographs etc.
3. Responsibilities of your organization in the national government or country.
4. Internal structure of your organization with the Organization Chart.
5. Equipments and personals of your organization (Seismic Network, Research Activities).
6. Analysis of Capacity (Strong and Weak points) of your organization and country (Disaster Mitigation Plan, Responsible organization, Hazard and Risk maps, Micro-zoning study.
7. Other organizations collaborating with yours for the seismological activities.
8. Your own responsibility in your organization.
9. Potential target of your study in the course with difficulties or obstacle for you to obtain your target with listing up the Strong and Weak points of you.
10. Your expectations for the course: What do you want to get in the course?

for Earthquake Engineering(E) group

1. Seismic Design Code for buildings of each country*
2. Characteristics of building damage due to earthquakes in your country.
3. Microzoning and earthquake disaster mitigation planning of each country.
4. Responsibilities of your organization in the national government or country.
5. Internal structure of your organization with the Organization Chart.
6. Your own responsibility in your organization.
7. Potential target of your study in the course with difficulties or obstacle for you to obtain your target with listing up the Strong and Weak points of you.
8. Your expectations for the course: What do you want to get in the course?

* Applicants who do not have any seismic design code in their countries are requested to present practical measures to secure the seismic safety of buildings.

The cover page of Inception Report should include:

(1)Name of Applicant,
(2)Name of Organization to which Applicant belongs, namely, the affiliation,
(3) Choice of Group (Select one of **(S)** or **(E)**).

Note: Ambiguous expression for the selection of group will cause a severe disadvantage in screening process.

Choice of Topic for Individual Study selected from the topics' list in "II. Description 10. Expected Module Output and Contents".

Note: Ambiguous expression or null answer will cause a severe disadvantage in screening process.)

The first page of Inception Report should include:

(4) Title and **Author's Name,**

(5) Abstract,

The abstract should be informative and include the principal findings and conclusions. References to formulas or figures are not necessary. It should not be consist of more than 200 words.

(6) Introduction,

(7) Affiliation of the Author.

Note: Affiliation should appear as a foot note on the first page as following sample shows.

The main part of Inception Report that starts from the second page should include:

(8) Topic mentioned above,

(9) "Acknowledgement" and **"Appendix"** after the topic if necessary.

(10) References,

Applicants are requested to submit attached documents including 3 or 4 items,

(11) Attached Document

- Information about the structure of Organization, for example, Organization Chart,
- Research activity of Organization related to Seismology, Earthquake Engineering, or Seismic Hazard/Risk Analysis,
- A list of governmental or private organizations related to Seismology or Earthquake Engineering in the country of Applicant, and,
- (If you select 'others' for the topic of Individual Study) a concrete plan of Individual Study. IISEE may inquire about the plan during the selection process.

(12) Format

1. The manuscript must be carefully prepared and should be submitted with A2A3 form and GRIPS application materials. The total pages of the Country Report should not exceed 15 pages including tables and figures.

2. Page Format: Use A4 white paper sheets (21 cm x 29.7 cm). Leave 2.5 cm margins at the top, right and left sides of the text and 3.5cm margin at the bottom. Special attention has to be paid in preparing papers using US letter-size paper. It should be appropriately arranged so that it conforms to the above requirements in appearance, namely the manuscript should occupy 16cm x 23.7cm in each page. All main text should be single spaced, Times New-Roman types. Use 18pt in capital letters and boldface for **TITLE**, 12pt for authors, and 11pt for the rest, including affiliations, abstract, main text, headings, sub-headings, sub-subheadings, acknowledgement, appendix, references, and captions for figures, photos and tables.

3. Organization of the papers: Write the **TITLE** of your paper, centered and in 18pt capital letters and boldface types at the top of the first page. After two more line space, write your names in 12pt. Last names should be in capital. Affiliations should be cited by superscripts. Leave two lines, and then write abstract in 11pt. "**ABSTRACT**" should be in capital letters and boldface

and be followed by the text of Abstract. After three lines, start main body of your paper in 11pt. The ordinary pages, starting from the second page, contain the main text from the top line. Avoid footnotes and remarks. Explain in the main text, or in Appendices, if necessary. Affiliation itself should be put at the bottom of the first page, cities, countries and e-mail addresses of all authors, as indicated above.

4. **HEADINGS:** Use at most three levels of headings, i.e., headings, subheadings and sub-subheadings. Headings shall be written in capital letters, boldface types, and centered of your text. Leave two lines space before headings and one after them. Do not indent the first line after headings, subheadings and sub-subheadings. First lines of the other text paragraphs should be indented as indicated here. Do not leave blank lines between paragraphs. **Subheadings:** Subheadings shall be written in lower-case letters and boldface types, right against the left side of your text, as indicated here. Leave one line space before and after subheadings. Use the above mentioned rules for indentation. ***Sub-subheadings:*** The only difference with respect to subheadings is that sub-subheadings shall be in Italic and no lines space shall be left after sub-subheadings. Don't put numbering to heading of any level.

5. **EQUATIONS AND SYMBOLS:** Use high quality fonts for both mathematical equations and symbols. Papers with hand-written mathematical equations and symbols are not accepted. Equations should be centered and numbered. Leave one line above and below equations. The equation number, enclosed in parentheses, is placed flush right. Equations should be cited in the text as Eq. (1).

6. **FIGURES, TABLES AND PHOTOS:** Figures and tables shall be legible and well reproducible, and photos shall be clear. Colored figures, tables and photo will be printed in Black and White. Captions shall be written directly beneath figures and photos and above tables, and shall be numbered and cited as Figure 1, Table 1 or Photo 1. They should be written in 11pt, and centered. Long captions shall be indented. Do not use capital letter or boldface types for captions. Figures, tables and photos shall be set possibly close to the positions where they are cited. Do not place figures, tables and photos altogether at the end of manuscripts. Figures, tables and photos should occupy the whole width of a page, and do not place any text besides figures, tables and photos. Leave one line spacing above and bottom of figures, tables and photos. Do not use small characters in figures and tables. Their typing size should be at least 9pt or larger.

7. **UNIT:** Use SI unit in the entire text, figures, and tables. If other units are used, provide it in parentheses after the SI unit as 1MPa (10.2 kgf/cm^2).

8. **CONCLUSIONS:** Write a **CONCLUSIONS** section at the end of your paper, followed by ACKNOWLEDGEMENT, APPENDICES and REFERENCES.

9. **ACKNOWLEDGMENT:** Acknowledgment should follow CONCLUSIONS.

10. **APPENDIX:** Appendix should be placed between Acknowledgment and References, if any.

11. **REFERENCE:** All references should be listed in alphabetical order of the first author's family name. They are referred in the main text like "(Gibson 1995)" or "(Aki 1957; Okada 2003; 2006)" when cited at the end of phrase and "Gibson (1995)" or "Aki (1957) and Okada (2003; 2006)" when cited in phrase. Write the reference list as

Gutenberg, B., and Richter, C. F., 1954, Seismicity of the Earth and Associated Phenomena, 2nd ed. Princeton Univ. Press, Princeton, NJ.
Richter, C. F., 1935, An instrument earthquake magnitude scale, *Bull. Seis. Soc. Am.* **25**, 1-32.
Web site: F-Net, National Research Institute for Earth Science and Disaster Prevention (NEID) http://www.fnet.bosai.go.jp/

(13) Sample for Inception Report

Sample for the cover sheet

THE GROUP TRAINING COURSE IN SEISMOLOGY, EARTHQUAKE ENGINEERING AND DISASTER-RECOVERY MANAGEMENT POLICY
2013 – 2014
(COURSE ID: J-13-00821)
INCEPTION REPORT
ON

1. Name of Applicant
2. Name of Organization
3. Choice of Group (S), (E)

Choice of Topic for Individual Study

Sample for the first page

TITLE OF THE INCEPTION REPORT

by
AUTHOR*

ABSTRACT

.....
.....
.....

INTRODUCTION

.....
.....

*The Author's organization and occupation are to be written here.

Download: the template file that may make your editing task easier from
http://iisee.kenken.go.jp/publications.htm

ANNEX III: Syllabus of the Training Program (Tentative)

S-Group (Seismology Group)

Category	Title	Subtitle	Contents
Orientation	Orientation	Overview of Earthquake and Disasters	Introductory lectures for Seismology Group are given by staff members of IISEE. Basic concepts and general scope of seismology, earthquake phenomena, strong motion study and seismic hazard and risk etc. are described.
Basic Subjects Related with Earthquake and Disasters	Information Technology Related with Earthquake and Disasters	Computer	Practices on FORTRAN programming for scientific computing and on UNIX and GMT are given using PC.
		Theory of Seismic Waves	Basic expressions for strain and stress relations are induced from the fundamental concept of the property of elasticity. Mathematical background of the theory of elasticity is discussed from the standpoint of specific problems such as equilibrium conditions, strain energy and transmissions of elastic waves. Reflection and refraction of plane waves are explained. P and S waves velocity distribution is discussed.
		Surface Waves	Crust and upper mantle structure inferred from surface wave methods will be explained.
		Scattering and Attenuation	Stochastic modeling and measurement of small-scale heterogeneities and intrinsic attenuation of seismic waves in the crust will be explained.
	Earthquake Phenomenology	Practice on Theory of Seismic Waves	This practice is presented for understanding the lecture, "Theory of Seismic Waves" through practices. We use TauP Toolkit developed at University of South Carolina for practices of global scale problems.
		Local Earthquake Analyses	Analyses of seismograms obtained by local networks, e.g., Wadati diagram, particle motion, apparent velocity, hypocenter determination, and magnitude.
		Analyses of Teleseismic Records	Explanation of principles underlying the interpretation of seismograms and determination of earthquake parameters. Practice of the analysis of seismograms and determination of earthquake parameters.
		Crustal Deformation	Introductory course of crustal deformation including geodetic survey and continuous measurement with special references to the problems on modeling of earthquake and volcanic events and earthquake forecasting.
		Seismicity and Statistics	Fundamental concepts on seismic activity and earthquake statistics including prediction-oriented method analysis.
		Crust and Upper Mantle Structure	Crust and upper mantle structure inferred from explosion seismic and surface methods are explained.
	Seminar of Basic Seismology		Discussion, presentation and practice for the topics of Basic Seismology
Advanced Subjects Related with Earthquake and Disasters	Earthquake Circumstance	Earthquake Generation and Prediction (1)	Earthquake dynamics and scaling laws are explained. Earthquake preparation processes and researches on short-term prediction are introduced.
		Earthquake Generation and Prediction (2)	Earthquake cycles and long- and intermediate-term prediction are introduced.
		Mathematics for Seismology	Basic concepts and technique of applied mathematics used often in the field of seismology are explained. Subjects include linear differential equations, Fourier analysis, matrix algebra and vector analysis. Practice of applied mathematics is also given.
		Focal Mechanism and Moment Tensor Analysis	Analysis and practical training in finding fault plane solutions is conducted by using seismic wave.
		Earthquake and Plate Tectonics	The basic concept of plate tectonics is presented. Methods to obtain plate motions are described.

		Earthquake Source Process	Basic models and conceptions of earthquake source processes are provided. The following three subjects: 1) how to describe an earthquake source mathematically, 2) how to synthesize body waves generated from the source, 3) how to determine the model parameters are explained.
	Characteristics of Earthquake Disasters	Data Processing	Theory and practice of the least squares method used for seismological analyses and those of Discrete Fourier transform and digital filter are introduced.
		Seismic Tomography	Theory and application of seismic tomography in local, regional, and global scales are explained. Practice on computer is also given.
		Observatory Practice	Seismic array observation is explained in the Matsushiro Seismological Observatory, Japan Meteorological Agency. The practical training of the analysis of array data is carried out.
		Effect of Surface Geology on Seismic Motion (1)	Effects of surface geology on seismic motion (ESG) are explained by showing results of ground motion case studies: amplification mechanisms of seismic waves, actual examples of site amplifications at sites with various site conditions, relations with earthquake damage.
		Effect of Surface Geology on Seismic Motion (2)	Subsurface explorations and strong motion synthetic techniques are explained in detail.
		Numerical Simulation of Seismic Wave Propagation	Basic theory of seismic wave propagation and numerical methods for solving the elastic equations are explained. Seismic wave propagation is demonstrated by animation made by computer. Practice on the numerical simulation is given by using PC.
	Special Topics	Observation Tour	Observation tour to the institutes that have notable activities in the field of Earth Sciences.
		Earthquakes and Tsunami	Basic concept and overview of tsunamis, including tsunami generation, propagation and tsunami warning and hazard reduction systems.
		Earthquake Geology	Geological subjects related to earthquake prediction, hazard assessment and countermeasures.
	Seminar of Applied Seismology		Discussion, presentation and practice for the topics of Applied Seismology
Earthquake Hazard and Risk Assessment	Earthquake Hazard Assessment	Soil Test and Survey (1)	Geotechnical field investigation and laboratory testing methods are discussed in this lecture. An emphasis is placed on providing the information about currently used practical methods.
		Strong Earthquake Motion Observation	General procedures and system of a strong-motion earthquake observation are presented. Participants are introduced to the principle of strong-motion accelerometers (SMAC), data acquisition systems and data analysis procedures. Application of strong earthquake ground motion to seismic-resisting design is explained.
		Soil Dynamics (1)	Fundamental properties of soil such as non-linearity and constitutive law are reviewed. Dynamic behavior of soil deposits and analytical method are explained with evaluation of material constants. Liquefaction of sand deposits will be discussed and countermeasures against liquefaction are introduced.
		Strong Ground Motion Study I (Probabilistic Seismic Hazard Analysis)	Seismic Hazard Assessment is discussed, that is an estimation of the likelihood of an earthquake occurrence and its magnitude in and around the location of interest and of the severity of strong ground motions expected for a certain return period.

		Strong Ground Motion Study II (Strong Motion Seismology)	Strong-motion seismology is concerned with high frequency seismic waves from large earthquakes. Its ultimate goal is to predict strong ground motion from the basic understanding of fault mechanics and seismic wave propagation in the Earth.
	Earthquake Risk Assessment	Practice for Damage and Risk Assessment	Topics related on Risk and Damage Assessment for buildings are given through lectures and observation visits.
		Microtremor Observation(1)	Practice in the field and analysis are introduced for microtremor that is one of the useful information to evaluate the characteristics of earthquake ground motion.
		Simulation of Seismic Ground Motion	Method to estimate the strong ground motion at the engineering bedrock based on the empirical formulas is explained.
		Microtremor Observation(2)	Field practice of microtremor array observation
		Geophysical Prospecting	Principles of seismic refraction and reflection and their applications to the real field are discussed. Field Practice is given.
		Seismic Micro-zonation	This lecture gives an introduction to seismic micro-zoning technique by presenting the methods to estimate the distribution of the local and regional seismic hazard, explaining the preparation process of seismic scenarios, describing the applications of micro-zoning results, and discussing the future of micro-zoning. Various examples of actual studies are also presented.
	Seminar of Earthquake Disaster-Recovery Management		Discussion, presentation and practice for the topics of Earthquake Disaster-Recovery Management
Earthquake Disaster-Recovery Management Policy	Disaster Mitigation-Recovery Policy		Disaster Mitigation-Recovery policy and earthquake risk management of national level are discussed with practical system and laws.
	Disaster Risk Management		A broad understanding of disaster risk management, including prevention / preparedness before disasters and recovery / reconstruction after disasters is provided.
	Disaster – Recovery Management and Development Assistance	Observation Visit for Earthquake Disaster-Recovery Management	Observation visit to the institutes related to disaster -recovery management.
		Japanese ODA Policy and Development Assistance Related with Disaster-Recovery Management	Japanese ODA policy and implementation and the international trend of development assistance related with disaster-recovery management activities including poverty and gender issues are explained.
	Seminar of Earthquake Disaster-Recovery Management Policy	Project Cycle Management for Disaster –Recovery Management	Methodology and practice for Project Management Cycle and its facilitation techniques.
		Earthquake Observation	Basic theory of seismometers is explained. A method for calibration of conventional type of short period seismometer is presented with a practical training. Data acquisition and seismic telemetry systems are explained
		Study Tour of Earthquake Monitoring	Observation visit to the institutes that have observational networks to monitor earthquakes.

Case Studies	Practice of Earthquake Disaster-Recovery Mitigation Policy	Colloquium	Three colloquiums are planned: 1) for the report on the seismic observation and its results in the countries of each participant, 2) for the practice of reading scientific papers, and 3) for explaining the plan of individual study.
		Study trips	Study trip to north-eastern part of Japan (Tohoku) for a week and to western part of Japan (Kansai) for a week.
	Practice for Seminar of Earthquake Disaster-Recovery Management		Practice for the topics of Earthquake Disaster-Recovery Management
Individual Study	Individual Study		During individual study period, each participant makes a research on a specific subject and writes a paper under the direction of an instructor. The subject is selected in the list shown in "II. Description, 10.Expected Module Output and Contents".

E- Group (Earthquake Engineering Group)

Category	Title	Subtitle	Contents
Orientation	Orientation	Guidance	An introduction to the training program for Earthquake Engineering Group will be given through Guidance and an introductory lecture.
		Introduction to Earthquake Engineering	Basic concepts and real facts of the 1995 Kobe earthquake, as an introductory lecture for engineering course.
		Computer	The lecture introduces the computer environment at International Institute of Seismology and Earthquake Engineering (IISEE) and the usage. Participants practice the computer programming of basic numerical analysis in the engineering field. Visualizing technique of numerical results using commercial softwares is also explained in the lecture.
Basic Subjects Related with Earthquake and Disasters	Structural Analysis	Structural Analysis A, B & C	Fundamental concepts and principles which are utilized in the current structural analysis are introduced in the matrix algebra language. The displacement method and the force method with some extension to the finite element method and the elastic-plastic analysis of structures are discussed in some detail. Fundamental theories for non-linear analyses of building structures are introduced. Some member models and basic concepts of the direct stiffness method are discussed. These theories are also learned with some exercises using available software in IISEE.
		Finite Element Method A	1) Basic concepts of finite element method 2) Procedures for static linear analysis 3) Formulation of some elements' matrices 4) Example programs
		Finite Element Method B	1) Application of FEM to RC Structures : Analytical Techniques of Shear in Reinforced Concrete Structures by FEM 2) Finite Element Analysis of Reinforced Concrete Structures in Japan 3) Finite Element Analysis of RC Members with High Strength Materials Panels, Shear Walls, Beams, Columns and Beam-Column Joints 4) Shear Resisting Mechanisms of RC Members Based on FEM Analysis 5) Finite Element Analysis of Masonry Structures
		Dynamic Aseismic Design	Dynamic aseismic design procedure is introduced. Problems which frequently occur during the design of high-rise building are presented with some examples.
		Limit Analysis	Fundamentals of plastic analysis of structures are presented. Elementary techniques to calculate the collapse loads of structures are also presented.

		Soil Mechanics	This lecture covers an introduction to fundamental soil mechanics which will give the basis for understanding dynamic behaviors of soil and foundation.
		Tsunami Load and Structural Design of Tsunami Shelter	(1) Observed Buildings Damage Pattern by Tsunami in Great East Japan Earthquake, (2) Introduction of Design Tsunami Loads in Past Guidelines and New Design Guideline, and (3) A Study on Design Flow and an Example of Tsunami Shelters
	Structural Dynamics	Structural Dynamics A & B	The objective of this subject is to study the behavior of structures by dynamic loadings. The lecture covers from the SDOF (single－degree-of-freedom) system to the MDOF (multi-degree-of-freedom) system. The deterministic procedure is discussed in detail with exercises. This lecture covers the spectrum analysis of time-history data of building response. The data obtained by both strong earthquake observation and micro-tremor measurement are used.
		Structural Response Analysis	Inelastic earthquake response analyses using SDOF systems with various kind of hysteresis models and introduction of some applications using inelastic earthquake response analyses. Member models and structural idealization which are utilized in the current nonlinear structural analysis of buildings are outlined. Examples of dynamic and nonlinear analysis of reinforced concrete structures are presented. Methods for the theoretical interpretation on the results from the numerical analysis are introduced.
		Soil Test and Survey (2)	Some common methods on the field survey of soil deposits and laboratory tests are introduced.
		Effect of Surface Geology on Seismic Motion	Effects of surface geology on seismic motion (ESG) are explained by showing results of ground motion case studies: amplification mechanisms of seismic waves, actual examples of site amplifications at sites with various site conditions, relations with earthquake damage.
		Dynamic Soil Structure Interaction	The physical meaning of dynamic Soil-Structure Interaction (SSI) and the influences of SSI on dynamic behaviors of structure are explained first. Next, Numerical procedures for evaluating SSI analysis for raft and pile foundation are instructed. Finally, the practical seismic design analysis methods are shown incorporating SSI effects.
	Seminar of Structure Analysis		Discussion, presentation and practice for the topic of Structural Analysis
Advanced Subjects Related with Earthquake and Disasters	Seismic Design	RC Structures (1)	The structural performance from cracks to collapse about the RC members is predicted by using some equations. The prediction is made by the equations for designs.
		RC Structures (2)	Detailed structural design procedure of reinforced concrete members for flexure, shear and bond is lectured. Design practice of RC members according to the presented design procedure is conducted.
		RC Structures (3)	The recent research topics in Japan including performance based design, Composite/Hybrid Structures, New RC (High Rise RC structure with High Strength materials), and Boxed Wall-Buildings are presented.
		RC Structures (4)	Outline of the seismic design procedure in accordance with the Japanese codes is presented. The related codes in U.S. and New Zealand and the design guidelines currently proposed in Japan are also introduced.
		Steel Structures	Outline of the design procedure for steel building structures in Japan is explained.

		Masonry Structures	The lecture covers an introduction to Performance of Masonry-based Structures and seismic design. The lecture covers an introduction to structural performance and seismic design of Confined Masonry structures, which has been studied as a research projects in BRI. It also includes housing construction conditions in the Third World Countries and their comparison with Japan's.
		Masonry Structures II	First, the concept and the method of seismic design of masonry structures will be reviewed for several representative design codes in the world. Also the "AIJ (Architectural Institute of Japan) Standard for the structural design of reinforced concrete hollow concrete block masonry structures" will be introduced as part of the Japanese codes. Second, the seismic behavior of masonry buildings will be explained from the aspects of "seismic evaluation of existing masonry buildings" and the "modeling of restoring force characteristics of masonry wall members".
		Structural Testing	Objectives, testing techniques, loading and measuring techniques are presented with some examples of the previous tests. Static tests for RC members are also conducted to observe structural performance.
		PC Structures	The earthquake resistant design of prestressed concrete and the application of prestressed concrete in primary seismic resistant elements such as building frames are presented.
		Foundation Engineering	Design concept and design procedures for static and earthquake loads for several types of foundation i.e. pile, spread and caisson foundations are presented. Furthermore their characteristics, construction methods, selection procedures, repairing methods, etc. are explained.
		Port & Harbor Structures and Tsunami Engineering	Earthquake resistant design for port and harbor structures is explained with some examples of actual earthquake damage.
		Dam Structures	The types of dams including concrete arch, gravity, and embankment dams are explained first. Next, design concepts of each type are given. The design of dams to resist earthquakes is discussed with the performance of dams during earthquakes, dynamic properties of dam materials, and analysis. Particularly, behaviors of dams during the 1995 Hyogoken-Nanbu Earthquake (Kobe Earthquake) and the 2000 Western Tottori Prefecture Earthquake are explained.
		Underground Structures	1) Damage to buried structures (tunnels, pipelines, etc.) 2) Observation of earthquake response of buried structures 3) Earthquake resistant design of buried structures and future problems 4) Other topics
		Urban Earthquake Disaster Mitigation System	Mechanism and various impacts of earthquake damage in urban areas will be analyzed considering the problems generated by urbanization of the area. Based upon the analysis above, issues for establishing proper countermeasures for disaster mitigation will be discussed.
	Seismic Evaluation and Retrofitting	Seismic Design Codes (1) & (2)	Participants investigate the design concept and methods of the selected seismic codes in the world. Presentation and discussion are given for comparison of the surveyed codes. Differences in each code are discussed.
		Earthquake Resistant Limit State Design (1) & (2)	The lecture covers an introduction to fundamental energy input concept which gives better understanding of the dynamic behavior of buildings.

		Seismic Evaluation and Rehabilitation: buildings (1) & (2)	Seismic capacity evaluation and seismic rehabilitation (retrofit) of existing buildings are introduced with emphasis on our practice after the 1995 Hyogoken-Nanbu Earthquake (Kobe Earthquake) Inspection and evaluation of earthquake damage to buildings and post-earthquake countermeasures for damaged buildings are also introduced.
		Seismic Design and Retrofit of Bridges	This lecture introduces concepts of seismic design method of highway bridges in Japan. The lecture starts from lessons learned from damage experiences in the past extreme earthquakes. Outline and concept of seismic design specifications of highway bridges in Japan are followed. Seismic assessment and retrofit design of existing bridges are presented.
		Seismic Isolation	Seismic isolation system is explained as one of structural response control methods. The Seismic isolation system is most effective to reduce the response and improve safety of a superstructure. Principles of the seismic isolation, merits and demerits of the seismic isolation, and behaviors of buildings with the seismically isolated buildings during earthquake are discussed.
		Design Earthquake Ground Motion and Seismic Force (1)& (2)	Seismic design code of Japan is introduced. Some international seismic design codes are also introduced and compared with each other.
		Structural Reliability	Introduction to reliability concept. Probability of failure as a measure for the safety degree. Extreme value distributions as probability model for load intensity. Load and resistance factor format based on the second moment reliability. Target safety degree due to the optimum reliability.
		Structural Response Control	Basic theory on structural seismic response control and its practical applications in Japan
	Seminar of Seismic Design, Seismic Evaluation and Retrofitting		Discussion, presentation and practice for the topic of Seismic Design, Seismic Evaluation and Retrofitting
Earthquake Hazard and Risk Assessment	Earthquake Hazard Assessment	Soil Test and Survey (1)	Geotechnical field investigation and laboratory testing methods are discussed in this lecture. An emphasis is placed on providing the information about currently used practical methods.
		Strong Earthquake Motion Observation	General procedures and system of a strong-motion earthquake observation are presented. Participants are introduced to the principle of strong-motion accelerometers (SMAC), data acquisition systems and data analysis procedures. Application of strong earthquake ground motion to seismic-resisting design is explained.
		Soil Dynamics	Fundamental properties of soil such as non-linearity and constitutive law are reviewed. Dynamic behavior of soil deposits and analytical method are explained with evaluation of material constants.
		Strong Ground Motion Study I (Probabilistic Seismic Hazard Analysis)	Seismic hazard assessment is discussed, that is an estimation of the likelihood of an earthquake occurrence and its magnitude in and around the location of interest and of the severity of strong ground motions expected for a certain return period.
		Strong Ground Motion Study II (Strong Motion Seismology)	Strong-motion seismology is concerned with high frequency seismic waves from large earthquakes. Its ultimate goal is to predict strong ground motion from the basic understanding of fault mechanics and seismic wave propagation in the Earth.
	Earthquake Risk Assessment	Practice for Damage and Risk Assessment	Topics related on Risk and Damage Assessment for buildings are given through lectures and observation visits.
		Microtremor Observation(1)	Practice in the field and analysis are introduced for microtremor that is one of the useful information to evaluate the characteristics of earthquake ground motion.

		Simulation of Seismic Ground Motion	Method to estimate the strong ground motion at the engineering bedrock based on the empirical formulas is explained.
		Microtremor Observation(2)	Field practice of microtremor array observation
		Seismic Micro-Zonation	This lecture gives an introduction to seismic micro-zoning technique by presenting the methods to estimate the distribution of the local and regional seismic hazard, explaining the preparation process of seismic scenarios, describing the applications of micro-zoning results, and discussing the future of micro-zoning. Various examples of actual studies are also presented.
	Seminar of Earthquake Disaster-Recovery Management		Discussion, presentation and practice for the topics of Earthquake Disaster-Recovery Management
Earthquake Disaster Mitigation Policy	Disaster Mitigation-Recovery Policy		Disaster Mitigation-Recovery policy and earthquake risk management of national level are discussed with practical system and laws.
	Disaster Risk Management		A broad understanding of disaster risk management, including prevention / preparedness before disasters and recovery / reconstruction after disasters is provided.
	Dissemination for Earthquake Disaster Mitigation	Dissemination for Earthquake Disaster –Recovery Management	Dissemination process for Earthquake Disaster –Recovery Management in Japan is explained through observation visits.
		Japanese ODA Policy and Development Assistance Related with Disaster-Recovery Management	Japanese ODA policy and implementation and the international trend of development assistance related with disaster-recovery management activities including poverty and gender issues are explained.
		Project Cycle Management for Disaster –Recovery Management	Methodology and practice for Project Management Cycle and its facilitation techniques.
		Shaking Table Testing	General concept of structural dynamic test is introduced. Simple shaking table test and free vibration test are practically performed using a small single mass model. Data processing technique is also discussed through the practice.
		System Identification in Vibration Analysis	This subject introduces several system identification methods to determine structural characteristics such as natural periods and damping ratios from measuring data of buildings.
	Seminar of Earthquake Disaster –Recovery Management Policy		Discussion, presentation and practice for the topics of Earthquake Disaster –Recovery Management Policy
Case Study	Practice for Earthquake Disaster Mitigation Policy	Colloquium	Three colloquiums are planned: 1) for the report on the seismic observation and/or seismic codes in the countries of each participant, 2) for the practice of reading scientific papers, and, 3) for explaining the plan of individual study.
		Study Trips	Study trip to northern part of Japan (Tohoku) for a week and to western part of Japan (Kansai) for a week.
	Practice for Seminar of Earthquake Disaster-Recovery Management		Practice for the topics of Earthquake Disaster-Recovery Management
Individual Study			During individual study period, each participant makes a research on a specific subject and writes a paper under the direction of an instructor. The subject is selected in the list shown in "II. Description, 10.Expected Module Output and Contents".

For Your Reference

JICA and Capacity Development

The key concept underpinning JICA operations since its establishment in 1974 has been the conviction that "capacity development" is central to the socioeconomic development of any country, regardless of the specific operational scheme one may be undertaking, i.e. expert assignments, development projects, development study projects, training programs, JOCV programs, etc.

Within this wide range of programs, Training Programs have long occupied an important place in JICA operations. Conducted in Japan, they provide partner countries with opportunities to acquire practical knowledge accumulated in Japanese society. Participants dispatched by partner countries might find useful knowledge and re-create their own knowledge for enhancement of their own capacity or that of the organization and society to which they belong.

About 460 pre-organized programs cover a wide range of professional fields, ranging from education, health, infrastructure, energy, trade and finance, to agriculture, rural development, gender mainstreaming, and environmental protection. A variety of programs and are being customized to address the specific needs of different target organizations, such as policy-making organizations, service provision organizations, as well as research and academic institutions. Some programs are organized to target a certain group of countries with similar developmental challenges.

Japanese Development Experience

Japan was the first non-Western country to successfully modernize its society and industrialize its economy. At the core of this process, which started more than 140 years ago, was the *"adopt and adapt"* concept by which a wide range of appropriate skills and knowledge have been imported from developed countries; these skills and knowledge have been adapted and/or improved using local skills, knowledge and initiatives. They finally became internalized in Japanese society to suit its local needs and conditions.

From engineering technology to production management methods, most of the know-how that has enabled Japan to become what it is today has emanated from this "*adoption and adaptation*" process, which, of course, has been accompanied by countless failures and errors behind the success stories. We presume that such experiences, both successful and unsuccessful, will be useful to our partners who are trying to address the challenges currently faced by developing countries.

However, it is rather challenging to share with our partners this whole body of Japan's developmental experience. This difficulty has to do, in part, with the challenge of explaining a body of "tacit knowledge," a type of knowledge that cannot fully be expressed in words or numbers. Adding to this difficulty are the social and cultural systems of Japan that vastly differ from those of other Western industrialized countries, and hence still remain unfamiliar to many partner countries. Simply stated, coming to Japan might be one way of overcoming such a cultural gap.

JICA, therefore, would like to invite as many leaders of partner countries as possible to come and visit us, to mingle with the Japanese people, and witness the advantages as well as the disadvantages of Japanese systems, so that integration of their findings might help them reach their developmental objectives.

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