

FOLLOW-UP SURVEY FOR EX-PARTICIPANTS OF TRAINING COURSE
 TSUKUBA INTERNATIONAL CENTER (TBIC)
 JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 AND
 INTERNATIONAL INSTITUTE OF SEISMOLOGY AND EARTHQUAKE
 ENGINEERING (IISEE), BUILDING RESEARCH INSTITUTE (BRI)

**QUESTIONNAIRE FOR EX-PARTICIPANT
 ON
 GROUP TRAINING COURSE
 IN
 SEISMOLOGY AND EARTHQUAKE ENGINEERING II**

I. PERSONAL DATA

(1) Name in full

Prof., Dr., Ms., Mr.		Age	Sex
Mr.	Can SIPAHI	(Ca.S) 38	Male
Ms.	Fitnat Filiz AYSOY	(Fi.F) 42	Female
Dr.	Serif BARIS	(Se.B) 38	Male
Mr.	Cahit KOCAMAN	(Ca.K) 38	Male
Mr.	Salih KARAKISA	(Sa.K) 41	Male
Mr.	Ramazan DEMIRTAS	(Ra.D) 33	Male
Mr.	Ali HURATA	(Al.D) 36	Male
Mr.	Adem SOMER	(Ad.S) 31	Male
Mr.	Turel GUR	(Tu.G) 24	Male

(2) Home address

- (Street and Number), (City), (State/Country), (Postal Code)
- (Ca.S) 46ADA, Kardelen 1-2A Daire, Istanbul, Turkey, 81120
 (Fi.F) Konutkent F-2 Blok D:7, Gayyolu, Ankara, Turkey
 (Se.B) B.U. Kandilli Observatory and Darthq. Res. INST. Cengelkoy, Istanbul, Turkey, 81220
 (Ca.K) Konutkent-2, A-2Blok, No:28, Gayyolu, Ankara, Turkey
 (Sa.K) 9 Eylul Sok 40/14 Kurtulsu, Ankara, Turkey, 06600
 (Ra.D) Giceki Mah Karaelmas Sk 18-9, Incirli, Ankara, Turkey, 06290
 (Al.D) Fakulteler Mahallese Oba Sk No:38/4 Igcebeci, Ankara, Turkey, 06590
 (Ad.S) Kardelen Mah. 332sol. 3/5 Ulasim sitesi, Ratikent, Ankara, Turkey
 (Tu.G) Hurriyet Cad. 53/19 Dikumen, Ankara, Turkey, 06460

(3) Year of your participation on GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II

- (Ca.S) 1984
 (Fi.F) 1986
 (Se.B) 1987
 (Ca.K) 1991-92
 (Sa.K) 1993
 (Ra.D) 1994-95
 (Al.D) 1995-96

(Ad.S) 1996-97
(Tu.G) 1997-98

II. YOUR PRESENT ORGANIZATION OUTLINE

(1) Name, type of organization and size

1) Name of your organization

- (Ca.S) Tek-Yen
(Fi.F) Turkish Precast Concrete Association
(Se.B) Bogazici University Kandilli Observatory & Earthquake Research Institute
(Ca.K) General Directorate of Disaster Affairs
(Sa.K) Ministry of Public Works and Settlement General Directorate of Disaster Affairs
(Ra.D) Ministry of Public Works and Settlement General Directorate of Disaster Affairs
(Al.D) Ministry of Public Works and Settlement General Directorate of Building Construction
(Ad.S) Ministry of Public Works and Settlement General Directorate of Disaster Affairs,
Earthquake Research Department
(Tu.G) Middle East Technical University Earthquake Engineering Research Center

Address:

(Street and Number), (City), (State/Country), (Postal Code)

- (Ca.S) Gumusyolu cak, icadiye Mah, No.5/5, Baglarbasi, Istanbul, Turkey, 81200
(Fi.F) Farabi Sok. No:39/10, Kavaklidere, Ankara, Turkey, 06690
(Se.B) B.U. Kandilli Observatory and Darthq. Res. INST. Cengelkoy, Istanbul, Turkey, 81220
(Ca.K) Eskisehir Yolu, Lodumlu Meykii, Ankara, Turkey
(Sa.K) Eskisehir Yom, 12 km. Lodumlu, Ankara, Turkey, 06530
(Ra.D) P.O.box 763 Kizilay, Ankara, Turkey
(Al.D) Uygulama ve Koordinasyon Dairesi Başkanlığı Nayinoirlik ve Iskan Md, Lugu Binashi
Kat Odtu Karsisi Eskisehir Yolu 8.km, Ankara, Turkey
(Ad.S) P.O.box 763 Kizilay, Ankara, Turkey
(Tu.G) Inonu Bulvari, Ankara, Turkey, 06531

(Telephone)	(Facsimile)	(Cable/Telex)	(E-mail)
(Ca.S) 216-3915801	216-4925605		tekyen@superonline.com
(Fi.F) 312-4676195	312-4676295		pnefab@ada.net.tr
(Se.B) 216-3080511	216-3322681		baris@hamlin.cc.boun.edu.tr
(Ca.K) 312-2872680			
(Sa.K) 312-2879370	312-2855304		salih@sismo.dcprem.gov.tr
(Ra.D) 312-2873640	312-2855304		
(Al.D) 312-2852506	312-4185540		
(Ad.S) 312-2873640	312-2855304		somer@depem.gov.tr
(Tu.G) 312-2105478	312-2101328		turelg@rorqual.cc.wetu.edu.tr

2) Your present title in your organization

- (Ca.S) Site Manager
(Fi.F) Head of the Technical Service
(Se.B) Research Scientist
(Ca.K) Staff
(Ra.D) Geological Engineer
(Al.D) Civil Engineer
(Ad.S) Geophysics Engineer

(Tu.G) Research Assistant

If your title changed after your GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II participation, please describe recent two titles and activities.

Latest Title

(Fi.F) I was working for the "Building Research Institute" of Turkey, while I was in Japan, But in 1987. I changed my job. Since then I am working for private sector. I worked as a project manager for a firm. Since July 1997 I am working for the " Turkish Precast Concrete Association" as the head of the Technical Service.

(Se.B) Research Scientist

(Ca.K) Staff

Name of organization

(Se.B) Bogazici University Kandilli Observatory & Earthquake Research Institute

(Ca.K) General Directorate of Disaster Affairs

Period

(Fi.F) from 1989 to 1997

(Se.B) from 1990 to 1998

(Ca.K) from 1997

Activities

(Se.B) Different research projects and teaching

(Ca.K) Damage Assessment

Previous Title

(Se.B) Research Assistant

(Ca.K) Consultant of State Minister

Name of organization

(Se.B) Bogazici University Kandilli Observatory & Earthquake Research Institute

(Ca.K) Premiership, Ministry of State

Period

(Se.B) from 1986 to 1990

(Ca.K) from 1992 to 1997

Activities

(Se.B) Involving research projects

(Ca.K) Technical Control of Immigrants Wowing Projects

3) Please indicate the type of your present organization. Please choose out of the following items.

a) Governmental (Se.B)(Ca.K)(Sa.K)(Ra.D)(Al.D)(Ad.S)

b) Semi-Governmental ()

c) Private (Ca.S)(Fi.F)

d) Other Type ()

What is it? Please specify

(Ca.S) Design and Construction Company

4) How many staffs does your organization have?

Number of staffs

(Ca.S) 150

- (Fi.F) 12
- (Se.B) around 150
- (Ca.K) 376
- (Sa.K) 80
- (Ra.D) 100
- (Al.D) 72
- (Ad.S) 100
- (Tu.G) 40(only EERC)

(2) Activities, responsibilities and organization chart

What are the main activities of your organization and what are your activities and responsibilities in it ?

- (Ca.S) Designing Roads and Bridges. Renovation of old Bridges. I am a bridge design engineer in this company, also now. I work as a site Manager in the renovation of golden horn bridge.
- (Fi.F) Turkish Precast Concrete Association is founded in 1984, to promote the use of precast concrete in the country and to represent the industry, to realize these objectives the association cooperates with public and private agencies for issues related with the industry, organizes training seminars for the personnel of member firms, develops standards and specifications for the industry, provides financial / technical support for research projects, organizes symposia, publishes books, relevant technical material and a periodical, and carries out promoting activities for the industry. To pursue its aim at the international level, the association has become member of the "International Bureau for Precast Concrete -BIBM" in 1993. Being the head of the "Technical Service" I am the assistant of the Secretary General of the Association, and I deal With almost all of the activities mentioned above.
- (Se.B) Research, education, public information, training. I am involved in all activities of my organization and plus joining international and national meeting, conferences, etc.
- (Ca.K) Planning and organization of all affairs during any disaster (Earthquake, torrent, landslide, avalanche, etc), Temporary settling and housing of victims to take measures to prevent or to decrease disasters, to search and investigate subjects above.
- (Sa.K) To install seismological stations and observe earthquakes, collecting data installation of seismological network, collecting data and their process, focal mechanism in studies.
- (Ra.D) Preliminary epicenter determination risk analysis deployment of strong ground motion and seismological stations, earthquake prediction, disaster prevention GIS, evaluation of earthquake precursors etc. Neotectonics, active tectonics, seismotectonics, earthquake geology especially paleoseismology.(trenching, mapping of surface ruptures and faultscarps, rupture process).
- (Al.D) To organize and plan construction of public buildings in rural areas and control them and solve the problems appending during construction period.
- (Ad.S) Seismological observation, Disaster prevention, Control of system for project process on the data.
- (Tu.G) To organize the earthquake related activities in civil engineering Dept. of the university.

* If you have the organization chart, please attach it. (if available)

III. EVALUATION OF GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II

(1) Ex-participant's evaluation of the course

- 1) Do you think the participation in the GROUP TRAINING COURSE IN SEISMOLOGY AND

EARTHQUAKE ENGINEERING II has been useful to your carrier?

To what extent were your expectations satisfied? Please check.

Curriculum:

Very good (Se.B)(Sa.K)
Good (Ca.S)(Ca.K)(Ra.D)(Al.D)(Ad.S)(Tu.G)
Fair ()
Poor (Fi.F)
Very Poor ()

Course Management:

Very good (Ca.S)(Ca.K)(Sa.K)(Al.D)(Ad.S)(Tu.G)
Good (Se.B)(Ra.D)
Fair (Fi.F)
Poor () Very Poor ()

Contents:

Very good (Sa.K)
Good (Ca.S)(Ca.K)(Ra.D)(Al.D)(Ad.S)(Tu.G)
Fair (Se.B)
Poor (Fi.F)
Very Poor ()

Training Methodology:

Very good (Sa.K)
Good (Ca.S)(Se.B)(Ca.K)(Ra.D)(Al.D)(Ad.S)(Tu.G)
Fair (Fi.F)
Poor () Very Poor ()

2) If your answer is "Fair", "Poor" and "Very poor", please explain your answer briefly.

(Fi.F) In my opinion earthquake engineering is a specialization topic for structural engineers, who are already familiar with computer programming, matrix analysis, structural design concepts. But, in the year 1986 the Earthquake Eng. course started with FORTRAN programming, matrix analysis etc, so due to these duplications, earthquake resistant design & analysis topics had less time than required. If the IISEE can be more selective about the backgrounds of the participants, the course will be much more valuable for the participants. Because Japan is one of the leading countries.

(Se.B) In the beginning of the course, lectures are very simple and time consuming.

3) After the participation in the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II, have you had any personal promotion in your position.

Yes (Se.B)(Al.D)
No (Ca.S)(Ca.K)(Sa.K)(Ra.D)(Ad.S)(Tu.G)

(Fi.F) In earthquake resistant design and analysis, topics and very important researches are carried out. Participants should have more chance to learn as much as possible.

In case of "Yes", and if possible, please briefly mention how and when?

(Se.B) After getting the course and individual study I made a progress. In my research and background and got permanent position in my job.

(Al.D) I had become acting head of earthquake research department.
(from march, 1997 to August, 1997)

4) After the participation in the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II, have you been trying to share the knowledge and technique obtained through the training with other staff in your organization?

Yes (Se.B)(Ca.K)(Ca.K)(Sa.K)(Ra.D)(Al.D)(Ad.S)(Tu.G)
No (Ca.S)(Fi.F)

In the case of "Yes", please give an example to illustrate specifically how?

- (Se.B) I distribute the lecture notes to other researcher and use them in my lectures.
(Ca.K) I had compared Turkish and Japanese aseismic design codes and standards we have found some faultinesses in Turkish codes during this study, Turkish a seismic coder have seen champed for 2 years.
(Sa.K) I used that knowledge for my own work at university and some time given a lecture to students and to my colleagues who works in our department.
(Ra.D) Show how to find earthquake recurrence intervals by using trenching method, how to identity earthquake fault scarp by observing morphological plane by using rupture process.
(Al.D) My individual study was accepted to be presented at the fourth national earthquake engineering congress held in METU in 1997.
(Ad.S) Show how to calibration of any seismometer and some information for seismology.
(Tu.G) whenever needed, I am telling them about Japanese way of practice or the common approach in Japan in technical applications. They can also use my documents from Japan.

* Following (2) and (3), the meanings of "the knowledge and technique" are themselves and also include the method of researching.

(2) Technical improvement

1) Have your knowledge and technique improved through the participation in the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II?

Fairly (Fi.F)(Se.B)(Ca.K)(Sa.K)(Ra.D)(Al.D)(Ad.S)(Tu.G)
Somewhat (Ca.S)
No ()

2) In case of "Fairly" or "Somewhat", please give an example(s) of the knowledge and technique newly acquired through the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II.

- (Ca.S) I have learned methods of testing.
(Fi.F) I learned and observed earthquake resistant analysis and design. Individual study, especially, improved my knowledge.
(Se.B) Making fault pane solutions and other up to date techniques in seismology (earthquake prediction).
(Ca.K) Some of the knowledges and techniques in Dynamic Analysis in Designing process.
(Sa.K) I did Ms. Sc. at university by using focal mechanism technique.
(Ra.D) Trenching methods, rupture process, observation of surface ruptures. Dating methods, earthquake prediction methods related to some precursors.
(Al.D) Earthquake resistant building technology of Japan base, I solution system or technique against the strong earthquake motions.
(Ad.S) Learns to calibration of seismometer.
(Tu.G) In Turkey, steel structures are not so common for ordinary structures, However, In Japan I have observed that steel can be used even for domestic structures, schools etc.

Which are reinforced concrete generally in Turkey.

3) If you do not think you improved/acquired any new/obvious knowledge and technique, what do you consider the reasons? Please choose any out of the following items.

Difference between levels of training:

- too high () too low ()
Language barrier ()
No interest in the training contents ()
Problems in method of instruction ()
Other reasons

Please specify

(3) Applicability

1) Have the knowledge and technique you acquired through the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II been useful and applicable to your current work? Please choose one.

- Fully (Fi.F)
Mostly (Sa.K)(Ra.D)(Ad.S)
Partly (Se.B)(Tu.G)
Slightly (Ca.S)(Ca.K)(Al.D)
Not at all ()

2) In case of "Fully", "Mostly" and "Partly", please specify what knowledge and/or technique are useful and applicable?

- (Fi.F) After returning home, I worked as a design engineer and I had the chance to apply the knowledge gained in Japan.
(Se.B) Frequency magnitude relationship, composite fault solutions, earthquake prediction techniques, and information
(Sa.K) Focal mechanism solution techniques and theory of seismology.
(Ra.D) The knowledge and techniques given during the individual study and partly in the first half at the course have been useful and applicable to my current work.
(Ad.S) The knowledge and techniques given during the individual study and partly in the first half of the course have been useful and applicable to my current work.
(Tu.G) My main field of research is on building type of structures. So this part of the course is directly related with my work. However, the course includes much more than that.

3) In case of "Slightly" and "Not at all", what are the main causes?

- (Ca.S)(Ca.K)(Al.D)
Different type of work at present
() Techniques level gap(s)
() Difference in technical background (Methods etc.)
(Ca.K) Others

Please specify.

(Ca.K) I wanted to continue my works in earthquake research department but wasn't allowed.

4) Which subject of GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II was most beneficial to your job?

(Ca.S) Individual study at the end of the course.

- (Fi.F) A seismic design, dynamic soil structure in traction, strong motion observation.
- (Se.B) Earthquake prediction, seismology, individual study analyses of earthquake records
- (Ca.K) all
- (Sa.K) Focal mechanism studies, data process, and local earthquake observation.
- (Ra.D) Earthquake geology and paleoseismology as well as related field trips.
- (Al.D) Dynamic aseismic design, Design seismic force, Seismic response control, Disaster mitigation planning on mostly the knowledge acquired in the part of individual study.
- (Ad.S) Local earthquake observation and practice which are teleseismic records, simulation of seismic wave, source mechanism, seismicity and statistics as well as related field trips.
- (Tu.G) Earthquake Resistant Diagnosis Repairs and Restrengthening.

5) Have you ever reported a research paper and/or presented orally at an academic meeting concerned with the research result through the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II?

- Yes (Se.B)(Sa.K)(Ra.D)
- No (Ca.S)(Fi.F)(Ca.K)(Al.D)(Ad.S)(Tu.G)

In case of "Yes", please give the name of the research paper and/or the academic meeting.

- (Se.B) There are a few examples related to earthquake prediction in different international meetings
- (Sa.K) It was published in the bulletin of earthquake research.
- (Ra.D) Seismotectonics of Turkey (preliminary approach to earthquake forecasting based on long term narrations in seismic activity and present Seismicity (in English) the October 1, 1995 Diner Earthquake (M1=S-9) in Turkey paleoseismology (in Turkey).

(4) Evaluation of the each subject

1) Considering your present research activity, which subjects of the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II were beneficial?

Please think about the beneficialness and necessity of the subjects described below (based on the curriculum of the FY1994-1995), then put a circle around A, B or C. If you have any comments on each subject, please write in the margin.

*beneficialness of the subject : A: very good B: fair C: poor
necessity of the subject : A: need B: no need

For Seismology Course

Subjects

Background

Guidance

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Mathematics I

beneficialness A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Mathematics II

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Computer Programming

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Data Processing

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Seismometry

Local Earthquake Observation

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Analyses of Local Earthquake

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Analyses of Teleseismic Records

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Observatory Practice

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Seismic Waves

Theory of Seismic Waves

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Simulation of Seismic Waves

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)
necessity A(Sa.K)(Ra.D)(Ad.S) · B(Se.B)
comment

Surface Waves, Scattering and Attenuation

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Strong Ground Motion

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B(Sy.A)
comment

Earthquake Source

Earthquake Source Process

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Practice on Source Mechanism

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)

necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Seismicity

Seismicity and Statistics

beneficialness A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Practice on Seismicity

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Earth's Structure

Crust and Upper Mantle Structure

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Seismic Tomography

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Seismic Prospecting

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Tectonics

Earthquakes and Plate Tectonics

beneficialness A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Crustal Deformation

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Earthquakes Tectonics

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Earthquake Prediction and Disaster Prevention

Earthquake Prediction

beneficialness A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Earthquake Seismology

beneficialness A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Seismic Microzoning

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)

necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Specialized

Global Seismology

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Rock Experiments

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Earthquake Geology

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Tsunamis

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Volcanoes and Earthquakes

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Others

Special Lectures

beneficialness A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Colloquium

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Observation Trips

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B · C(Se.B)
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Study Trips

beneficialness A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment

Individual Study

beneficialness A(Sa.K)(Ra.D)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ra.D)(Ad.S) · B
comment (Ra.D) It should be increased.
(Ad.S) It should be increased.

Total

beneficialness A(Sa.K)(Ad.S) · B(Se.B) · C
necessity A(Se.B)(Sa.K)(Ad.S) · B

comment

For Earthquake Engineering Course

Subjects

Mathematics & Computer

beneficialness A(Al.D)(Tu.G) · B(Ca.S)(Fi.F)(Ca.K) · C

necessity A(Ca.S)(Ca.K)(Al.D) · B

comment

General Earthquake Engineering

beneficialness A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B · C

necessity A(Ca.S)(Fi.F)(Ca.K)(Al.D) · B

comment

Structural Testing

beneficialness A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B · C

necessity A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B

comment

Structural Reliability

beneficialness A(Fi.F)(Al.D)(Tu.G) · B · C(Ca.S)

necessity A(Fi.F)(Al.D)(Tu.G) · B(Ca.S)

comment

Ground Vibration

beneficialness A(Fi.F)(Al.D)(Tu.G) · B(Ca.S) · C(Ca.K)

necessity A(Fi.F)(Ca.S)(Al.D)(Tu.G) · B(Ca.K)

comment

Strong Ground Motion

beneficialness A(Fi.F)(Al.D) · B(Ca.S)(Ca.K)(Tu.G) · C

necessity A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B

comment

Strong Earthquake Motion Observation & Design Earthquake Ground Motion

beneficialness A(Fi.F)(Ca.K)(Al.D) · B(Ca.S)(Tu.G) · C

necessity A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B

comment

Dynamic Soil-Structure Interaction

beneficialness A(Ca.S)(Ca.K)(Al.D)(Tu.G) · B · C

necessity A(Ca.S)(Ca.K)(Al.D)(Tu.G) · B

comment

Soil Mechanics

beneficialness A(Fi.F)(Ca.K)(Al.D) · B(Ca.S) · C(Tu.G)

necessity A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B

comment

Soil Test & Survey

beneficialness A(Al.D) · B(Ca.S)(Fi.F)(Ca.K) · C(Tu.G)

necessity A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B

comment

Soil Dynamic

beneficialness A(Fi.F)(Al.D) · B(Ca.S)(Tu.G) · C(Ca.K)

necessity A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B

<i>comment</i>	
Structural Analysis	
<i>beneficialness</i>	A(Ca.S)(Al.D)(Tu.G) · B(Ca.K) · C
<i>necessity</i>	A(Ca.S)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
Structural Dynamic & Random Vibration	
<i>beneficialness</i>	A(Al.D)(Tu.G) · B(Fi.F)(Ca.K) · C
<i>necessity</i>	A(Ca.S)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
Finite Element Method	
<i>beneficialness</i>	A(Ca.S)(Fi.F)(Al.D)(Tu.G) · B(Ca.K) · C
<i>necessity</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
Limit Analysis	
<i>beneficialness</i>	A(Ca.S)(Al.D)(Tu.G) · B · C(Ca.K)
<i>necessity</i>	A(Ca.S)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
Design Seismic Force	
<i>beneficialness</i>	A(Al.D)(Tu.G) · B(Ca.S)(Fi.F) · C
<i>necessity</i>	A(Ca.S)(Fi.F)(Al.D)(Tu.G) · B
<i>comment</i>	
Dynamic Aseismic Design	
<i>beneficialness</i>	A(Ca.S)(Ca.K)(Al.D)(Tu.G) · B(Fi.F) · C
<i>necessity</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
Earthquake-Resistant Limit State Design for Buildings	
<i>beneficialness</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B · C
<i>necessity</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
Seismic Response Control	
<i>beneficialness</i>	A(Fi.F)(Ca.K)(Al.D)(Tu.G) · B · C(Ca.S)
<i>necessity</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
RC Structure	
<i>beneficialness</i>	A(Ca.S)(Fi.F)(Al.D)(Tu.G) · B · C(Ca.K)
<i>necessity</i>	A(Ca.S)(Fi.F)(Al.D)(Tu.G) · B(Ca.K)
<i>comment</i>	
Steel Structure	
<i>beneficialness</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B · C
<i>necessity</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
PC Structure	
<i>beneficialness</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B · C
<i>necessity</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
Wooden Structure	
<i>beneficialness</i>	A(Fi.F)(Ca.K)(Al.D) · B · C(Ca.S)(Tu.G)
<i>necessity</i>	A(Fi.F)(Ca.K)(Al.D)(Tu.G) · B(Ca.S)

<i>comment</i>	
Foundation Engineering	
<i>beneficialness</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D) · B · C(Tu.G)
<i>necessity</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
Bridge Engineering	
<i>beneficialness</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D) · B(Tu.G) · C
<i>necessity</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
Infrastructures (Port & Harbor, Dam, Tunnel, Electric Facilities)	
<i>beneficialness</i>	A(Fi.F)(Al.D) · B(Ca.S)(Ca.K) · C(Tu.G)
<i>necessity</i>	A(Fi.F)(Ca.K)(Al.D)(Tu.G) · B(Ca.S)
<i>comment</i>	
Disaster Mitigation Planning	
<i>beneficialness</i>	A(Fi.F)(Al.D) · B(Ca.S)(Ca.K) · C(Tu.G)
<i>necessity</i>	A(Fi.F)(Ca.K)(Al.D)(Tu.G) · B(Ca.S)
<i>comment</i>	
Lifeline Facilities	
<i>beneficialness</i>	A(Fi.F)(Ca.K)(Al.D) · B(Ca.S) · C(Tu.G)
<i>necessity</i>	A(Fi.F)(Ca.K)(Al.D)(Tu.G) · B(Ca.S)
<i>comment</i>	
Earthquake-Resistant Diagnosis, Repair & Strengthening	
<i>beneficialness</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B · C
<i>necessity</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
Colloquium	
<i>beneficialness</i>	A(Fi.F)(Ca.K)(Al.D)(Tu.G) · B(Ca.S) · C
<i>necessity</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
Observation Trips	
<i>beneficialness</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B · C
<i>necessity</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
Study Trips	
<i>beneficialness</i>	A(Fi.F)(Ca.K)(Al.D)(Tu.G) · B(Ca.S) · C
<i>necessity</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	
Individual Study	
<i>beneficialness</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B · C
<i>necessity</i>	A(Ca.S)(Fi.F)(Ca.K)(Al.D)(Tu.G) · B
<i>comment</i>	

IV. TRAINING COURSE IMPROVEMENT

(1) Time allocation: Training course as a whole and among each of the program

1) Overall course duration (Present course: 11 months)

How do you evaluate the whole length. Please choose one.

Too long

Fair (Ca.S)(Fi.F)(Se.B)(Ca.K)(Ra.D)(Al.D)(Ad.S)(Tu.G)

Too short (Sa.K)

In case you think it is "Too long." or "Too short", what do you think is the appropriate length?

(Sa.K) (24) months

Reasons

(Sa.K) We can study for Ms.Sc. or for doctor courses. Because we spend almost one year and we started working for Ms. Sc. again.

2) Time allocation for each programs

Please write a comment/opinion regarding the length of Orientation, Lectures, Individual Study and Study Trips if any:

(Ca.S) The time of the lectures which I have marked as "A" in beneficialness level shall be increased and lectures marked as "C" shall be decreased.

(Fi.F) Time schedule was quite good. I think the education program was also improved since 1986.

(Se.B) The time for individual study is short for making a good research. I recommend this period should be at least 5 months.

(Ca.K) Damage assessment after earthquake.

(Sa.K) Everything is OK.

(Ra.D) The length of orientation and lectures is sufficient but the length of individual study should be increased for more practice.

(Al.D) Totally the length of the course is sufficient but the length of the individual study should be increased more.

(Ad.S) Individual study should be increased. Time is not enough for participants.

(Tu.G) If the study trips of E and S courses are done separately, the time for the trip may be used more efficiently.

(2) Subject(s) to be added or deleted

*Subject(s) means the contents of curriculums.

1) Considering the circumstances/conditions at your home country, what do you think are the training subject(s) to be more emphasized and/or added?

(Ca.S) Design course

(Fi.F) I preferred to follow the laboratory works more, or even join them. To prepare a design project as a final works prepare a seismic design of a building with all necessary calculation and drawings.

(Se.B) Earthquake prediction techniques, software packages and programs for Seismicity analysis.

(Ca.K) Some of them are more emphasized.

(Sa.K) Earthquake seismology, data processing, computer programming and local earthquake informations can be extended.

(Ra.D) Social and psychological subjects in relation to man how to behave during one large earthquake.

(Al.D) Special topics related to individual study should be more intensive during the first part of the course.

(Tu.G) Newly developed techniques and applications should be emphasized more.

2) If you consider some training subject(s) not needed in the program, what are they?

(Fi.F) In my opinion, the training subjects that are included in any normal civil engineering training program are not needed in IISEE program.

(Se.B) Theory of seismic waves, seismic micro zoning.

(Ca.K) Ground vibration, seismic response control.

(Tu.G) Some of the basic topics may be expected to be known by the participants (such as stuck red dynamics) and excluded. The basic level of the study should be very well adjusted.

3) The study trips include observation/visit of institutes, universities, factories.

What kind of spot (including universities, institutes, construction spot and so forth) are preferable for field trips? What do you like to observe and learn there?

(Ca.S) I think construction sites shall be visited and trainees stay there for few days. they shall learn the difference between design and construction. They shall see how Japanese engineers and workers are organized and work.

(Fi.F) Construction sites, design offices be preferred

(Se.B) The selection of study trip is fairly good enough. I think those universities should prepare a booklet indicating their research activities in detail.

(Ca.K) All study trips were very useful for me.

(Sa.K) What are they using techniques, equipment and what are they doing at their universities and institutions.

(Ra.D) More practice in the field, more field observation related to earthquake plane lands more visit to earthquake produced faults and observation earthquake precursors along the active faults.

(Al.D) 1) More visit to a variety of engineering structures especially earthquake prone cities.

2) More visit to companies working on seismic response control systems. (should be programmed by the title of each participants.)

(Ad.S) More practice in Laboratory and trip (field).

(Tu.G) Especially in the construction sites, Here should be more technical details including even some design details.

(3) Suggestion for the improvement of future programs

If you have any other comments/opinions as to the improvement of GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II, please write here.

(Ca.S) Number of courses are too much. They must be reduced.

(Fi.F) A more flexible training program may be more convenient for the participants. Every body can follow a program that suits more to his/her background.

(Se.B) Please extend the period of individual study and call ex-participants for at least five-years period for advance course and provide up-to-date lecture notes and computer programs.

(Ca.K) to make a real structural design application by using PC during lectures will be useful (each participant must use their own country codes and standards and compare them of to designing).

(Al.D) The same suggestions that I mentioned above.

(Tu.G) The topics which one required to attend such a course should be determined. The basic level of the participants should be at least university graduate.(especially civil engineer for E course.)

V. JICA AFTER-CARE SERVICES

(1) Requests as to the follow-up for the ex-participants of the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II

1) After the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II, have you contacted your host institute in Japan?

Yes (Fi.F)(Ca.K)(Sa.K)(Tu.G)
No (Ca.S)(Se.B)(Ra.D)(Al.D)(Ad.S)

2) If "Yes", Please write what kind of information did you get or give through that contact?

- (Fi.F) Very recently, I asked BRI to send me some documents related with a seismic design of precast concrete elements. And I am very pleased with the immediate response.
(Ca.K) Just to send new year card.
(Sa.K) The publishing a paper related to dinar earthquake in Turkey in 1995.
(Tu.G) I asked for some detailed information about restrengthening with sheerwall in RC structures.

3) Please specify your requests as to JICA's follow-up for ex-participants and its support after the training?

- (Fi.F) Could you please send us every year a list of BRI publications and research reports (in English) including their prices that we can ask for the ones we are interested in .
(Se.B) I think JICA should keep close contact with ex-participants and provide more information what is going on right now in Japan and in science.
(Ca.K) JICA must not forget ex-participants, we have a JICA office in Turkey now. But we couldn't contact yet. We need some helps, for example I want to attend Japanese language course given by JICA.
(Sa.K) It should be very good if they give us a chance to improve our knowledge in the field of seismology again.
(Ra.D) After few years IISEE course was completed ex-participants should be called again for a shorter course like seminar course for following new developments in scientific and technological researchers.
(Al.D) Ex-participants should be informed in recent development and technologies regarding their individual study subjects.
(Ad.S) After few years IISEE course was completed ex-participants should be called again for a shorter course like seminar course for following new developments in scientific and technological researchers.
(Tu.G) It's better to have some technical documents regularly from Japan about the recent studies and techniques.

(2) Alumni Association of JICA Ex-participants

1) Are you a member of Alumni Association of JICA Ex-participants?

Yes (Fi.F)
No (Ca.S)(Se.B)(Ca.K)(Sa.K)(Ra.D)(Al.D)(Ad.S)(Tu.G)

2) If "Yes", what activities do you take part in?

(Fi.F) I try to take part in all activities as far as I have time.

VI. YOUR IMPRESSION ON CURRENT SEISMOLOGY AND EARTHQUAKE ENGINEERING TECHNOLOGY IN JAPAN

Please write down freely and frankly.

- (Ca.S) I was impressed with the high technology equipments used and organizations made to monitor on Earthquake in Japan.
(Fi.F) Before coming to Japan I know that Japanese earthquake engineering technology has a very high level. While I was living in Japan I saw that high level with my own eyes and I really impressed with what I saw. I hope to visit Japan again and observes the improvements during the past 12 years.

- (Se.B) I cannot tell the current seismological technology and as far as I know from one colleagues and you have a very advanced technology like permanent GPS, strain meter and satellite transmission equipments.
- (Ca.K) We observe very well technology in Japan. But, after kobe earthquake, I was very surprised. I thought that human being's will continue against natural disasters.
- (Sa.K) I am very happy to join that course, and I would like to thank to government of Japan and JICA and to my teachers and staffs who are in IISEE.
- (Ra.D) When compared to our country, researches on seismology and earthquake engineering are more advanced and ever developing as a resulted developed economy on one rand earthquake resistant building design is very developed on the other land installation of ocean bottom seismometers is very fascinating.
- (Al.D) Especially, earthquake engineering technologies in Japan are very developed and advanced comparing to other countries.
- (Tu.G) This course was very good to know different approaches in different countries. I have also observed very interesting techniques which are not used in my country.

VII. REQUEST TO JICA

If you have any requests to JICA, please specify here.

- (Se.B) We need some technical aid and make common research together with Japanese scientists. In this manner when JICA needs to give technical support or give a new project JICA can ask to ex-participants from idea and participation please also fell us the Japanese embassy that when they have a party or social events they can call ex-participants also not only Monbusho scholars (This is true for at least in Istanbul)
- (Ca.K) More contact. to shore know ledges and activities (in dude social activities). Japanese language course for ex-participants giving by JICA.
- (Sa.K) I would like to thank to JICA again to give we a chance to see Japan and Japanese people who are very kindly.
- (Ra.D) It should provide on opportunity for ex-participants to assemble somewhere JICA organizes every year.
- (Al.D) Ex-participants should be informed about recent development and activities on earthquake engineering in Japan.
- (Ad.S) It should provide on opportunity for ex-participants to assemble somewhere JICA organizes every year.
- (Tu.G) I would like to thank once more to the people who made the life easier during the course.

FOLLOW-UP SURVEY FOR EX-PARTICIPANTS OF TRAINING COURSE
 TSUKUBA INTERNATIONAL CENTER (TBIC)
 JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 AND
 INTERNATIONAL INSTITUTE OF SEISMOLOGY AND EARTHQUAKE ENGINEERING
 (IISEE), BUILDING RESEARCH INSTITUTE (BRI)
QUESTIONNAIRE FOR ORGANIZATION CONCERNED
 ON
 GROUP TRAINING COURSE
 IN
 SEISMOLOGY AND EARTHQUAKE ENGINEERING II

I. ORGANIZATION OUTLINE

(1) Name, type of Organization and size

1) Name of Organization:

- (MPWS RS-1) Ministry of Public Works & Settlement, General Directorate of Disaster Affairs, Earthquake Research Department
- (MPWS RS-2) Ministry of Public Works & Settlement, General Directorate of Disaster Affairs, Earthquake Research Department
- (MPWS RS-3) Ministry of Public Works & Settlement, General Directorate of Disaster Affairs, Earthquake Research Department
- (MPWS RS-4) Ministry of Public Works & Settlement, General Directorate of Disaster Affairs, Earthquake Research Department
- (MPWS BC) Ministry of Public Works & Settlement, General Directorate of Building Construction, Application and Coordination Division
- (GDDA) General Directorate of Disaster Affairs
- (BUK) Bogazici University Kandilli Observatory and Earthquake Research Institute
- (METU) Middle East Technical University Earthquake Engineering Research Center Department

Address:

- (MPWS RS-1)(MPWS RS-2)(MPWS RS-3)(MPWS RS-4)
P.O.Box 763 Kizilay, Ankara, Turkey
- (MPWS BC) Uygulama ve Koordinasyon Dairisi Baskanligi Eskisehir yolu 8. km ODTU Karsisi, Ankara, Turkey
- (GDDA) Eskisehir Yolu, Lodumlu Meykil, Ankara, Turkey
- (BUK) B.Ü. Kandilli Observatory and E.R.I. Istanbul, Cengelkoy, 81220
- (METU) Inonu Bulvari, Ankara, Turkey, 06531

	(Telephone)	(Facsimile)	(Cable/Telex)	(E-mail)
(MPWS RS-1)	312-2873642	312-2855306		somer@dpprem.gov.tr
(MPWS RS-2)	312-2873645	312-2855304		
(MPWS RS-3)	312-2879370	312-2855304		salih@simo.dcprem.gov.tr
(MPWS RS-4)	312-2873645	312-2855304		yilmaz@deprem.gov.tr
(MPWS BC)	312-2852506	312-9185540		
(GDDA)	312-2872680 / Inter Line : 339			
(BUK)	216-308-0511/15	216-322-2681/332-1711		baris@hamlin.cc.boun.edu.tr
(METU)	312-2105478	312-2101328		eesc@rouqvd.cc.metu.edu.tr

2) Please indicate the type of your organization. Please choose on the following items.

- a) Governmental (MPWS RS-1)(MPWS RS-2)(MPWS RS-3)(MPWS BC)
(MPWS RS-4)(GDDA)(BUK)(METU)
- b) Semi-Governmental ()
- c) Private ()
- d) Other Type ()

What is it? Please specify.

(MPWS RS-3) Earthquake Research Department

(MPWS RS-4) Earthquake Research Department

3) How many staffs does your organization have?

Number of staffs:

1.Total

(MPWS RS-2) 100

(MPWS RS-2) 100

(MPWS RS-3) 80

(MPWS RS-4) 100

(MPWS BC) 72

(GDDA) 376

(BUK) 150

(METU) 40

2.Research/Technical

(MPWS RS-1) 70

(MPWS RS-2) 70

(MPWS RS-3) 50

(MPWS RS-4) 70

(MPWS BC) 42

(GDDA) 270(133 Engirees)

(BUK) 60

(METU) 37-38

3.Administration

(MPWS RS-1) 30

(MPWS RS-2) 30

(MPWS RS-3) 30

(MPWS RS-4) 30

(MPWS BC) 8 (Worker 32)

(GDDA) 106

(BUK) 90

(METU) 1

(2) Activities, responsibilities and organization chart

1) What are the main activities and responsibilities of your organization?

(MPWS RS-1) Seismological observation, Disaster prevention, control of system for project,
Process on the data

(MPWS RS-2) Seismological observation, Risk assessment, Mapping of active faults.
Paleoseismology, Disaster prevention, Earthquake resistant building design.

Strong braced motion, etc.

(MPWS RS-3) To install seismological and strong motion stations, observed earthquakes, collect data and process it.

(MPWS RS-4) General directorate of disaster affairs is responsible for all disaster related affairs such as research, planning, mitigation studies, legislation(?), etc. ERD: all earthquake related matters, observation (weak and strong motion), preparation of zoning map and code, registration, research, etc)

(MPWS BC) To organize and plan construction of public buildings in rural areas and control them and solve the problems appearing during construction period.

(GDDA) Planning and Organization of all affairs during any disaster (Earthquake, Torrent, landslide, Avalanche, etc.) Temporary Settling and housing of Victims to take measures to Prevent or to decrease disasters to Search and investigate Subjects alone

(BUK) Research, operating national seismic network, education, making research on geomagnetism, meteorology solar physics and running these observatories, giving information about earthquakes, and solar and astronomical events.

(METU) Research studies on earthquake engineering.
Organization of earthquake engineering related activities.

* If you have your organization chart, please attach it.

(3) Relation with Japan

1) How many of your staff members have participated in JICA training course in the past? And what were the Courses they participated in.

1.Total

(MPWS RS-1) 15

(MPWS RS-2) 15

(MPWS RS-3) 8

(MPWS RS-4) around 15

(BUK) 6

(METU) 1

2.GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II

(MPWS RS-1) 10

(MPWS RS-2) 10

(MPWS RS-3) 7

(BUK) 6

(METU) 1

3.Other JICA's Courses

(MPWS RS-1) 5

(MPWS RS-2) 5

(MPWS RS-3) 1

2) Does your organization have any joint project or program (research/training) with Japanese institute(s) except JICA?

Yes (MPWS RS-1)(MPWS RS-2)(BUK)(METU)

No (MPWS RS-3)(MPWS RS-4)

If it does, could you please specify the name of program and/or project?

- (MPWS RS-1) Earthquake Disaster Prevention Research Center
 (MPWS RS-2) Joint project on disaster prevention center on the central part of the North Anatolian fault.
 (MPWS RS-4) Establishment of Disaster Prevention Research Center
 (BUK) Multidisciplinary Earthquake prediction research on the western part of the North Anatolian Fault zone, Monbusho program.
 (METU) We have an agreement of cooperation with university of Tokyo on disaster mitigation.

3) Does your organization have any relationship with any other countries similar to JICA's training?

- Yes (MPWS RS-1)(MPWS RS-2)(MPWS RS-4)
 No (MPWS RS-3)(MPWS BC)

Please specify the name of program and/or project, if possible.

- (MPWS RS-1) Earthquake Disaster Prevention Research Center
 (MPWS RS-2) Joint project on earthquake prediction at the western part of the North Anatolian fault between Turkey and Germany.
 (MPWS RS-4) Earthquake prediction studies about the western part of Turkey with Germany.

4) Do you have any request about a joint program and/or project with Japanese research institute?

- Yes (MPWS RS-2)(BUK)
 No (MPWS RS-1)(MPWS RS-3)(MPWS RS-4)(MPWS BC)(METU)

In case of "Yes", what is it?

- (MPWS RS-2) In seismology and seismotectonics research
 (BUK) Operate a common 3-component broad-band seismic network in Turkey. This kind work is especially very important for better understanding crustal structure, earthquake process and earthquake prediction research.
 (METU) There is an agreement of cooperation in disaster mitigation between METU and University of Tokyo. I would like to pursue an investigation on the distribution of damage in rural housing in the Ceyhen-Adena area.

II. APPLICATION AND NOMINATION OF CANDIDATE TO JICA TRAINING COURSE

(1) Procedure of selection

1) Please let us know the procedure of candidate nomination

(MPWS RS-3)(MPWS RS-4)(BUK)

The organization advertise for candidate and judge from his/her aptitude and qualification

(MPWS RS-1)(MPWS RS-2)(GDDA)(BUK)(METU)

After judging from staff's aptitude and qualification, the organization order the candidate to go to Japan

Others (Please specify the procedure below).

2) How long did it take you to choose the final candidate(s) for the the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II?

within one month (MPWS RS-1)(MPWS RS-2)(MPWS RS-3)(MPWS RS-4)(GDDA)(BUK)(METU)

more than one month ()

If it took more than one month, how many months?

3) What are the standards and qualification of candidate selection for the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II?

Please choose any out of the following.

present post of candidate	(MPWS RS-1)(MPWS RS-2)(BUK)
research record	(BUK)
service record	(BUK)
educational background	(MPWS RS-3)(MPWS RS-4) (GDDA)(BUK)(METU)
intention	(MPWS RS-4)(BUK)
interchange between the training institute	(BUK)
others (Please specify below.)	()

(2) General Information (G.I.): brochure of the course from JICA

1) Did you get enough information from the "G.I." for selecting final candidate(s) for the training course?

Should any other piece of information be added to the "G.I."?

Yes, it is enough. (MPWS RS-1)(MPWS RS-2)(MPWS RS-3)(MPWS RS-4)(GDDA)
(BUK)(METU)

No, it is not enough. ()

In cases of "No", please specify the information to be added.

2) Do you usually receive "G.I." well in advance?

Yes (MPWS RS-1)(MPWS RS-2)(MPWS RS-3)(MPWS RS-4)(BUK)
No, it arrives late. (GDDA)(METU)

(3) Number of prospective applicants/candidates

1) How many applicants/candidates do you have every year for the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II?

(MPWS RS-1) 1
(MPWS RS-2) 1
(MPWS RS-3) one or two
(BUK) 2 or 3
(METU) 1

2) How many staffs in your organization do you consider are adequate for participation in the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II in the future?

(MPWS RS-1) 10
(MPWS RS-2) 20
(MPWS RS-3) 8 or 10
(MPWS RS-4) around 20
(BUK) 10
(METU) 5

III. EVALUATION OF THE TRAINING PROGRAM

(1) Results/achievements of the training

Have you found any good results/achievements in your staff after the GROUP TRAINING

COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II at the point of the following? Please specify if available.

a) the method of researching

(MPWS RS-2) From point of view of solving problems related to seismology, seismotectonics, particularly after an occurrence of large earthquake.

(MPWS RS-3) We had experience about it.

(MPWS RS-4) They are researching with more broadened views.

(BUK) Ability to make research is increased.

b) the knowledge/technique

(MPWS RS-1) Knowledge and techniques are the world standards.

(MPWS RS-2) Knowledge and techniques are the world standards.

(MPWS RS-3) We improved our knowledge and techniques.

(MPWS RS-4) They have furthered more knowledge in the topics and gained self-confidence.

(BUK) They learnt new techniques and gained a wide variety of knowledge about earthquakes.

c) Others

(GDDA) We observed and learned the principles, methods and discipline at working life in Japan

(BUK) They learnt how to give a scientific talk and improve their self-confidence.

(2) Applicability of the knowledge/technique obtained through the training in Japan

1) Are ex-participants applying the knowledge/technique obtained through the training in Japan to their works back at home country?

a lot (MPWS RS-3)

to some extent (MPWS RS-1)(MPWS RS-2)(MPWS RS-4)(BUK)(METU)

no application ()

2) If there are some examples of good application, please specify them.

(MPWS RS-3) I learned good knowledge and techniques for practice on focal mechanism.

(BUK) By learning code(code-o?) and alternatives some ex-participants use this method and made some research. Also, by using earthquake prediction techniques they made research.

3) In case of "no application", why do you think the reason?

(GDDA) There isn't enough financial allocation for research and investigate in Turkey. Administration is very bad and insufficient etc.

4) Do you try to assign ex-participants to responsibilities/posts where they can make good use of the knowledge/technique obtained through GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II?

Yes (MPWS RS-1)(MPWS RS-2)(MPWS RS-3)(BUK)

No (GDDA)(METU)

5) In case of "Yes", please give an concrete example.

(MPWS RS-1)(MPWS RS-2)

Their responsibilities related to how to solve the problems during, and after a large earthquake.

(MPWS RS-3) To process data, to learn computer programing in the field of seismology and so on.

(BUK) These ex-participants can take a major role for teaching their experience to our

students and new staff.

(3) Expectations for future JICA programs

1) Would you like to continue sending your staff to participate in GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II?

Yes (MPWS RS-1)(MPWS RS-2)(MPWS RS-3)(MPWS RS-4)(GDDA)
(BUK)(METU)
No ()

2) In case of "Yes", what/how intense are your expectations?

(MPWS RS-1) The course is useful for participant.

(MPWS RS-2) Two experts from both seismology and earthquake engineering sections had better participate in this course.

(MPWS RS-3) I would like to study more in the field of seismology and in the field of earthquake source process.

(GDDA) First of all, only observing and investigation in Japan are very useful for all Participants

(BUK) Every year our participants to IISEE course and every two or three years our ex-participants can go to advanced course or individual study.

(METU) one participant in every 2-3 years

(4) Compare with other programs (other similar training offered by another organization)

How do you evaluate GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II compare with other one?

- level of content:

high (MPWS RS-1)(MPWS RS-2)(MPWS RS-3)(MPWS RS-4)(BUK)
low ()
neither (METU)

- length:

long ()
short (MPWS RS-3)
neither (MPWS RS-1)(MPWS RS-2)(MPWS RS-4)(BUK)(METU)

- quantification:

difficult ()
easy (MPWS RS-3)(BUK)
neither (MPWS RS-1)(MPWS RS-2)(MPWS RS-4)(METU)

- number of participants

many () not many ()
neither (MPWS RS-1)(MPWS RS-2)(MPWS RS-3)(MPWS RS-4)(BUK)(METU)
(GDDA) I can not compare. Because I don't know how other similar training is.

IV. IMPROVEMENT OF FUTURE GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II

(1) Knowledge or technique that your organization hopes participants to obtain from the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II.

In future, what sort of knowledge/technique would you expect your training participants to acquire from the future GROUP TRAINING COURSE IN SEISMOLOGY AND

EARTHQUAKE ENGINEERING II?

(MPWS RS-1)(MPWS RS-2)

More advanced methods in relation to earthquake precursor, earthquake disaster preventions, risk assessment, fault mechanism and earthquake resistant building design.

(MPWS RS-3) I need have some further techniques and knowledge for focal mechanism and earthquake source process.

(MPWS RS-4) advanced methods related to observation technics, source mechanism, mitigation of resistant design, etc.

(BUK) According to my experience the duration of individual study should be longer and you should accept more participants for individual study instead giving a training course.

(METU) Adequate knowledge of seismology and earthquake engineering including new technology and recently developed techniques/methodologies.

(2) Improvements of the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II

If you have any opinions/comments regarding the improvements of future courses, please specify as to the following.

a) Duration of program

(MPWS RS-1) Individual study is very short for more practice. Time is not enough for participants (severely).

(MPWS RS-2) As mentioned above, individual study is too short for more practice, it must be lengthened.

(MPWS RS-3) It can be longer.(2 years)

(MPWS RS-4) The period at individual study should be increased.

(MPWS BC) ok

(GDDA) Can be extended

(BUK) Duration of lectures would be six months and 5months for individual study.

b) Curriculums

(MPWS RS-1)(MPWS RS-2) Good

(MPWS RS-4) more practice especially for field works.

(MPWS BC) ok

(GDDA) during lectures more problem solving and more applications, for example, to make a real structural design by using PC will be very useful.

(BUK) More specific lectures will be better depending on participants background and interest.

c) Contents of training

(MPWS RS-1)(MPWS RS-2) Good

(MPWS RS-3) In seismology field.

(MPWS RS-4) ok

(MPWS BC) ok

(GDDA) It must be allocated more time for laboratory studies (executing tests of beams, large or full scale building structures etc.)

(BUK) In the beginning it is very simple. I advise that first lectures should be more advanced knowledge.

d) Technique levels

(MPWS RS-1)(MPWS RS-2) Good
(MPWS RS-4) ok
(MPWS BC) ok
(BUK) I think technique levels are quite all right.

e) Others

(MPWS RS-1) Level of participants is not equal. Specially, using the computer and seismology information have big difference.

(MPWS RS-2) Level of participants is not equal because different participants with different knowledge join this course. For this reason their level must be same for each other.

(MPWS RS-4) Background of participants have to be more or less equal and participants have to be working on earthquake field.

(BUK) Please contact with ex-participants and send all new training course lecture notes, computer programs and any kind information related with JICA.

V. JICA AFTER-CARE

JICA conducts after-care services for ex-participants of the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II. If you (as an organization) have any opinions/requests concerning this services. Please specify here.

(MPWS RS-1)(MPWS RS-2) I have no idea about it.

(MPWS RS-3) It is ok.

(BUK) As I mentioned before JICA should keep-in-touch with us. We learnt a lot while we were in Japan and now we want to make more advanced works. So we needs support and help of JICA both financially and technically. we can co-operate in research project with JICA experts.

VI. MAJOR PROBLEMS OF TECHNOLOGY FOR SEISMOLOGY, EARTHQUAKE ENGINEERING AND EARTHQUAKE DISASTER PREVENTION MEASURES IN YOUR COUNTRY

Please describe the present problems in your country and/or in your organization.

(MPWS RS-2) Number of seismic instruments are not sufficient for whole active faults.

Knowledge about active faults all over Turkey is not enough. Moreover all active faults have not been identified.

Some fault parameters such as recurrence interval slip rate, elapse time are not known yet due to dating methods, which are realized.

Microzonation studies have not been made sufficiently.

It is very difficult to apply disaster prevention methods for Turkey because we have to know a lot of parameters such as soil type, types of building.

There are lots of poor constructed building especially in eastern Turkey.

(MPWS RS-3) Technology is very expensive in my country some times it is not reachable. We follow behind of technology.

(MPWS BC) The techniques on earthquake engineering in Turkey are still under progress. As compared to Japan some earthquake resistant building design methods have not been applied yet.

(GDDA) Structures without any design and control in rural areas.(Most of them are in high seismic areas) Some faultinesses(?) in control process during construction Some faultinesses(?) in aseismic design for example designing without dynamic analysis.

(BUK) Turkey is an earthquake-prone country and 90% of population lives under earthquake rbc. We need to increase the number of seismic station and continue to work on earthquake prediction and mitigation research. For making such research projects we need expensive instruments such as broad-ban seismometer and 6ps, etc. To provide a large amount of money for all kind of research is really difficult due to economical situation of our country and government. The budget is not enough to conduct a very nice research and to detect micro earthquakes and digital form.

VII. REQUEST TO JICA

If you have any request to JICA, please specify here.

(MPWS RS-3) I thank to JICA for their kind cooperation with company.

(MPWS BC) Some meeting should be organized to be aware of developments and new techniques in both countries every year.

(GDDA) More contact to share knowledge, activities, Japanese language course for ex-participants be given by JICA.

(BUK) I would like to go to Japan for making individual study for 4-6 months. If JICA provides me opportunity to make a co-operation with an institute and provide technical aid, I would like to make a new network in a certain region in Turkey and make research with this data. JICA can invite ex-participants more frequently to give them updated information, technology and culture.

* About the person filled in the questionnaire

Date:

(MPWS RS-1) 08.06. 1998

(MPWS RS-2) 03.06. 1998

(MPWS RS-3) 18.06. 1998

(MPWS RS-4) 03.06. 1998

(MPWS BC) 03.06. 1998

(GDDA) 14.06. 1998

(BUK) 02.06. 1998

(METU) 07.12. 1998

Position:

(MPWS RS-1) Geophysical Engineering

(MPWS RS-2) Geophysical Engineering

(MPWS RS-3) Seismologist

(MPWS RS-4) Head of Earthquake Res. Dept.

(MPWS BC) Civil Engineer

(GDDA) Civil Engineer

(BUK) Senior Researcher

(METU) Civil Engineering

Printed name:

(MPWS RS-1) Adem SOMER

(MPWS RS-2) Ramazan DEMIRTAS

(MPWS RS-3) Salih KARAKISA

(MPWS RS-4) Rughan YILMAZ

(MPWS BC) Ali HURATA

(GDDA)
(BUK)
(METU)

Cahit KOCAMAN
Dr. SERIF BARIS
Polat GULKAN

FOLLOW-UP SURVEY FOR EX-PARTICIPANTS OF TRAINING COURSE
 TSUKUBA INTERNATIONAL CENTER (TBIC)
 JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 AND
 INTERNATIONAL INSTITUTE OF SEISMOLOGY AND EARTHQUAKE
 ENGINEERING (IISEE), BUILDING RESEARCH INSTITUTE (BRI)
QUESTIONNAIRE FOR EX-PARTICIPANT
 ON
 GROUP TRAINING COURSE
 IN
 THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING

I. PERSONAL DATA

(1) Name in full

Prof., Dr., Ms., Mr.	Age	Sex
My. , S. Balamir UCER	(Ba.U) 63	Male
Mr Polat gulkan	(Po.G) 54	Male
Mr. Ruchan YILMAZ	(Ru.Y) 49	Male
Prof., Dr. , M. Hasan BODUROGLU	(Ha.B) 54	Male
Mr. Nejat BAYULKE	(Ne.B) 51	Male
Ms. Behiye Fugen SEVITOPU	(Be.S) 39	Female

(2) Home address

(Ba.U) Haman Arkesi Sok. Kiymet Apt. NO:9, D:8, 81220, Çenpellöy Istanbul, STANBUL
 Turkey, 81220

(Po.G) Kelebek Sok. 6/5 Gariosman Pasa, Ankara, Turkey, 06700

(Ru.Y) Ziyaulrahman Cad.Devlet Mah. 28 Blok No:7 Cankaya, Ankara, Turkey, 06450

(Ha.B) Çamlık Mevkii, Muge Apt. No:20, D.5 Eteley 80630, Istanbul, Turkey

(Ne.B) 100ncu Yil isci Bloklari Mah Anilsitesi ABlok No:48, Balgat Gankaya, Ankara, Turkey,
 06530

(Be.S) Nihatpasa Cad. No:11 75/13 Uckuyular Izmir, Turkey

(3) Year of your participation on the GROUP TRAINING COURSE IN THE SEMINAR ON
 SEISMOLOGY AND EARTHQUAKE ENGINEERING

(Ba.U) 1961, 1986

(Po.G) 1981

I did not have group training. A working trip to Japan was arranged within the
 program.

(Ru.Y) 1983-84

(Ha.B) 1988

(Ne.B) 1991

(Be.S) 1998

II. YOUR PRESENT ORGANIZATION OUTLINE

(1) Name, type of organization and size

1) Name of your organization

(Ba.U) Bogazigi University, Kandilli Observatory and Earthquake Research Institute

- (Po.G) Middle East Technical University
 (Ru.Y) Ministry of Public Works and Settlement General Directorate of Disaster Affairs
 Earthquake Research Department
 (Ha.B) Istanbul Technical University
 (Ne.B) Ministry of Public Works and Settlement General Directorate of Disaster Affairs
 Earthquake Research Department
 (Be.S) Izmir Metropolitan Municipality

Address: (Street and Number), (City), (State/Country), (Postal Code)

- (Ba.U) Çenpelli, Istanbul, Turkey, 81220
 (Po.G) İnönü Bulvarı, Ankara, Turkey, 06531
 (Ru.Y) P.O.Box 763 Kızılay, Ankara, Turkey
 (Ha.B) Faculty of Civil Engineering Maslak, Istanbul, Turkey, 80626
 (Ne.B) P.O.Box 763 Kızılay, Ankara, Turkey
 (Be.S) Cumhuriyet Str. No.1 İZMİR

	(Telephone)	(Facsimile)	(Cable/Telex)	(E-mail)
(Ba.U)	216-3080511	216-3321711		ucerb@boun.edu.tr
(Po.G)	312-2102446	312-2101193		a3516@rorqual.cc.metu.edu.tr
(Ru.Y)	312-2873645	312-2855304		yilmaz@deprem.gov.tr
(Ha.B)	212-2853797	212-2856587		bodurogl@itu.edu.tr
(Ne.B)	312-2873645			
(Be.S)	232-4839229	232-4893159		habitat@bornova.ege.edu.tr

2) Your present title in your organization

- (Ba.U) Instructor
 (Po.G) Professor of Civil Engineering
 (Ru.Y) Head of Earthquake Research Department
 (Ha.B) Chairman of the Department of Civil Engineering
 (Ne.B) Chief of Earthquake Engineering Section
 (Be.S) Director of Construction Department

If your title changed after the participation in GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING, please describe recent two titles and activities.

Latest Title

- (Ba.U) Deputy Director

Name of organization

- (Ba.U) Kandilli Observatory

Period

- (Ba.U) from 86 to 92

Activities

- (Ba.U) Administrative works

Previous Title

- (Ba.U) chief of seismology Department

Name of organization

- (Ba.U) Kandilli Observatory

Period

(Ba.U) 1973 to 1986

Activities

(Ba.U) on seismological works in observatory

3) Please indicate the type of your present organization. Please choose out of the following items.

- a) Governmental (Ba.U)(Po.G)(Ru.Y)(Ha.B)(Ne.B)(Be.S)
- b) Semi-Governmental ()
- c) Private ()
- d) Other Type ()

What is it? Please specify

(Po.G) University

(Be.S) Metropolitan Municipality of IZMIR (MMI)

4) How many staffs does your organization have?

Number of staffs

(Ba.U) nearly 125

(Po.G) 750

(Ru.Y) 100 (Earthquake Research Department)

(Ha.B) in the civil Engineering Department Faculty member:88 Research Assistant:60

(Ne.B) 100

(Be.S) 16

(2) Activities, responsibilities and organization chart

What are the main activities of your organization and what are your activities and responsibilities in it?

(Ba.U) 1) Teaching 2) to carry out the project on earthquake prediction in Iznik-Mekece Fault.
3) Establishment of telemetered seismic network in the western extension of the North Anatolian Fault.

(Po.G) An academic institution.

(Ru.Y) Earthquake Research Department (ERD) observation at earthquakes and strong motion networks, carrying out projects on prediction, mitigation, etc, Seismotectonical studies, preparation at engineering zoning maps, codes, so forth, I am as the head responsible for all these activities.

(Ha.B) Education both at Bachelor and Graduate levels & Research.

(Be.S) The organization we are related to is MMI which deals the city's urban problems, eg. planning, infrastructure, waste water, construction, building licenses and precautions for earthquakes etc. Our department is responsible for preparing reconstruction directorate regrading the city and high rise buildings. In addition to this, the study of projects pertinent to buildings and licensing for construction is under my departments responsibility.

* If you have the organization chart, please attach it. (if available)

III. EVALUATION OF GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING

(1) Ex-participant's evaluation of the course

1) Do you think the participation in the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING has been useful to your carrier?

To what extent were your expectations satisfied? Please check.

Curriculum:

Very good (Ba.U)
Good (Ru.Y)(Ha.B)(Be.S)
Fair (Ne.B)
Poor () Very Poor ()

Course Management:

Very good (Ba.U)
Good (Ru.Y)(Ha.B)(Be.S)
Fair (Ne.B)
Poor () Very Poor ()

Contents:

Very good (Ba.U)
Good (Ru.Y)(Ha.B)(Ne.B)(Be.S)
Fair () Very Poor ()

Training Methodology:

Very good (Ba.U)
Good (Ru.Y)(Ha.B)(Be.S)
Fair (Ne.B)
Poor () Very Poor ()

2) If your answer is "Fair", "Poor" and "Very poor", please explain your answer briefly.

(Po.G) I did not attend lectures as in a course. I was already an associate professor of civil engineering in 1981, and my tour was arranged so that I could receive information about the siting of nuclear plant in Japan.

(Ne.B) 1) The technical and scientific level of the participants were below the one required by the course.

2) There were a lot of basic topics lectures, very few advanced lectures.

3) Most of the courses were on topics for teaching the elementary principles which I had already known.

3) After the participation in the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING, have you had any personal promotion in your position.

Yes (Ba.U) But partly

No (Po.G)(Ru.Y)(Ha.B)(Ne.B)(Be.S)

In case of "Yes", and if possible, please briefly mention how and when?

(Ba.U) I started to establish permanent and radio linked seismic network in Turkey.

4) After the participation in the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING, have you been trying to share the knowledge and technique obtained through the training with other staff in your organization?

Yes (Ba.U)(Po.G)(Ru.Y)(Ha.B)(Ne.B)(Be.S)

No ()

In the case of "Yes", please give an example to illustrate specifically how?

(Ru.Y) The knowledge I gained in Japan were included in my articles and are being used in my lecture that I am giving in the university.

(Ha.B) Two Ph.D. Dissertations had been completed. Extensive effort for the current JICA project at ITU.

(Ne.B) The knowledge I gathered in Japan were included in my publications of " Earthquake resistant design of R. and masonry building" and " Repair and strengthening of E/Q Damaged Buildings" books.

(Be.S) Flow and transfer of information along the staff in my institution and the chamber of different professions related to our subject has provided for 6months.

* Following (2) and (3), the meanings of "the knowledge and technique" are themselves and also include the meaning of "method of researching".

(2) Technical improvement

1) Have your knowledge and technique improved through the participation in the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING?

Fairly (Ru.Y)(Ha.B)(Ne.B)(Be.S)

Somewhat (Ba.U)

No ()

2) In case of "Fairly" or "Somewhat", please give an example(s) of the knowledge and technique newly acquired through the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING.

(Ba.U) It became to realize an effective co-operation with Japanese scientists.

(Ha.B) Seismic Indexing Approach

(Ne.B) The course level was not very advanced. What I learned was through a couple of new publications that I had come across the library of the ISEE institute.

(Be.S) It helped us in implementation process of RADIUS project

3) If you do not think you improved/acquired any new/obvious knowledge and technique, what do you consider the reasons? Please choose any out of the following items.

Difference between levels of training:

(Ba.U) too high

(Ne.B) too low

() Language barrier

() No interest in the training contents

() Problems in method of instruction

() Other reasons

Please specify.

(3) Applicability

1) Have the knowledge and technique you acquired through the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING been useful and applicable to your current work? Please choose one.

Fully (Be.S)

Mostly (Ba.U)(Ru.Y)(Ha.B)(Ne.B)

Partly (), Slightly (), Not at all ()

2) In case of "Fully", "Mostly" and "Partly", please specify what knowledge and/or technique are useful and applicable?

(Ba.U) Instrumental application. Data processing of seismic network.

(Ru.Y) All the lectures had given useful knowledge especially, local mechanism and

interpretation at seismograms Besides library was very useful.

(Ha.B) Earthquake Engineering Information

(Ne.B) I have come across new methods of repair and strengthening of RC building during the course and from the publications I found at the library of IISEE.

(Be.S) It helped me both in the implementation process of RADIUS PROJECT and earthquake master plan of IZMIR.

3) In case of "Slightly" and "Not at all", what are the main causes?

() Different type of work at present

() Techniques level gap(s)

() Difference in technical background (Methods etc.)

() Others

Please specify.

4) Which subject of GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING was most beneficial to your job?

(Ba.U) Seismic instrumentations

(Ru.Y) Although I do not quite remember, local earthquake observation, record analysis, focal mechanism, tectonics, is one to be mentioned.

(Ha.B) Seismic Index Method for the Evaluation for Existing RC Buildings

(Ne.B) I do not quite remember, but the most impressive lecture was by prof. YOSHIMI on liquefaction.

(Be.S) (1) Disaster mitigation planning. (2) Building damage during 1995 Kobe Earthquake.

(3) Earthquake Damage Assessment of Japan and Tokyo Metropolitan Government.

5) Have you ever reported a research paper and/or presented orally at an academic meeting concerned with the knowledge and technique you had got through the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING?

Yes (Po.G)(Ha.B)(Be.S)

No (Ba.U)(Ne.B)

In case of "Yes", please give the name of the research paper and/or the academic meeting.

(Ha.B) The Application of Seismic Index Method for the Evaluation of the damaged military hospital in March 13, 1992 Erzincan Earthquake (with P.ozdemir)

Third National Conference on Earthquake Engineering, pp.427-436 March 1995.

(Be.S) Report about the training course and about the RADIUS project

IV. TRAINING COURSE IMPROVEMENT

(1) Time allocation: Training course as a whole and among each of the program

1) Overall course duration (Present course: 1.3 months)

How do you evaluate the whole length. Please choose one.

Too long ()

Fair (Ba.U)(Ru.Y)(Ha.B)(Ne.B)(Be.S)

Too short (Po.G)

In case you think it is "Too long:" or "Too short", what do you think is the appropriate length?

(Po.G) (4) months

Reasons

- (Po.G) I think the group training should be self-contained and not presume any prior knowledge of participant. My former student have reported varying background in their fellow participants.
- 2) Time allocation for each programs
Please write a comment/opinion regarding the length of Lectures and Field Trips if any:
- (Ru.Y) Length of individual study should be increased.
(Be.S) Sufficient enough to improve myself
- (2) Subject(s) to be added or deleted
*Subject(s) means the contents of curriculums.
- 1) Considering the circumstances/conditions at your home country, what kind of training subject(s) do you think to be more emphasized and/or added?
- (Ru.Y) Length of tectonics lecture should be increased and field studies be added.
(Be.S) Lectures about application and implementation process of earthquake scenarios.
- 2) If you consider some training subject(s) not needed in the program, what are they?
- (Be.S) In my opinion although it was thought to be needed, too much theoretical lectures were given in your training program. In fact, our aim to come that training course was to observe the implementation procss of earthquake scenario in your country and to apply it in our home city.
- 3)The field trips include observation/visit of institutes, universities, factories.
What kind of spot (including universities, institutes, construction spot and so forth) are preferable for field trips? What do you like to observe and learn there?
- (Ba.U) To see some of seismological institute and to discuss our problems for the improvements of our knowledge.
(Po.G) Yes, very much.
(Ha.B) University, Institutes and construction spots
· Construction techniques
· Current Research works
(Be.S) They were quite good.
- (3) Suggestion for the improvement of future programs
- 1) If you have any other comments/opinions as to the improvement of **GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING**, please write here.
- (Ba.U) More practice and applications rather than lectures will be very useful.
(Ru.Y) More practice in the field should be carried out.
(Ne.B) 1) Please choose persons who would really benefit from the course and no one should be taken who is not really involved in the EQ studies etc.
2) It would be better to call individuals and make special programs suitable their interest. Let them clearly state their field of interest and then select a few experts who would teach them individually.
(Be.S) Mentioned above
- 2) What do you think of the training course as the refreshment training of the group training course in Seismology and Earthquake Engineering II? Are the objectives or contents appropriate
- (Ba.U) very good

(Be.S) Application and implementation based program might be suggested.

V. JICA AFTER-CARE SERVICES

(1) Requests as to the follow-up for the ex-participants of the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING

1) After the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING, have you contacted your host institute in Japan?

Yes (Be.S)

No (Ba.U)(Ru.Y)(Ha.B)(Ne.B)

(Po.G) Only indirectly and thereat personnel, I had established earlier.

2) If "Yes", Please write what kind of information did you got or give through that contact?

(Be.S) Photographs and home page (information) have come

3) Please specify your requests as to JICA's follow-up for ex-participants and its support after the training?

(Be.S) Necessary contacts have been provided by use of internet.

(2) Alumni Association of JICA Ex-participants

1) Are you a member of Alumni Association of JICA Ex-participants?

Yes (Ha.B)

No (Ba.U)(Po.G)(Ne.B)(Be.S)

2) If "Yes", what activities do you take part in?

VI. YOUR IMPRESSION ON CURRENT SEISMOLOGY, EARTHQUAKE ENGINEERING AND DISASTER PREVENTION TECHNOLOGY IN JAPAN

Please write down freely and frankly.

(Ba.U) It is really very useful organization especially for junior seismologist in younger age. The advanced course is also very useful for senior scientists.

(Ru.Y) Japanese research activities on seismology and engineering were very impressive and lots of effective research works are being carried out..

(Ne.B) It is now almost seven years since my participation in the group training course. At that time it seemed and I got the impression that the Japanese research activities were impressive and a lot of effective research work were being carried out!

(Be.S) Of course, quite improved and known by the world techniques were seen by all the participants.

VII. REQUEST TO JICA

If you have any requests to JICA, please specify here.

(Ba.U) We had very good co-operation with Japanese scientists about Earthquake Prediction studies in the western part of North Anatolian Fault Zone. We installed several geophysical laboratory and also seismic telemetered network. If we have some technical aid from JICA for the instrumental development for our project, it will be very constructive contribution.

(Be.S) I will be very pleased to be informed about the subjects relating to architectural and planning concepts and technique and the group or individual training courses organized by JICA to my address.

FOLLOW-UP SURVEY FOR EX-PARTICIPANTS OF TRAINING COURSE
 TSUKUBA INTERNATIONAL CENTER (TBIC)
 JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 AND
 INTERNATIONAL INSTITUTE OF SEISMOLOGY AND EARTHQUAKE ENGINEERING
 (IISEE), BUILDING RESEARCH INSTITUTE (BRI)
QUESTIONNAIRE FOR ORGANIZATION CONCERNED
 ON
 GROUP TRAINING COURSE
 IN
 THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING

I. ORGANIZATION OUTLINE

(1) Name, type of Organization and size

1) Name of Organization:

- (MPWS) Ministry of Public Works & Settlement
- (METU) Middle East Technical University
- (ITUF) Istanbul Technical University Faculty of Civil Engineering
- (BUKO) Bogaziçi University, Kandilli Observatory and Earthquake Research Institute

Address:

- (MPWS) P.O.Box 763 Kizilay, Ankara, Turkey
- (METU) Inonu Bulvart, Ankara, Turkey, 06531
- (ITUF) Maslak 80626 Istanbul, Turkey
- (BUKO) Çenpelkoy Istanbul, Turkey, 81220

(Telephone) (Facsimile) (Cable/Telex) (E-mail)

- (MPWS) 312-2873645
- (METU) 312-21102401 312-2101262 cedep@rotqual.cc.metu.edu.tr
- (ITUF) 212-285-3797 212-285-6587 bodurogl@itu.edu.tr
- (BUKO) 216-308-0514 216-332-1711 ucerb@boun.edu.tr

2) Please indicate the type of your organization. Please choose on the following items.

- a) Governmental (MPWS)(METU)(ITUF)(BUKO)
- b) Semi-Governmental ()
- c) Private ()
- d) Other Type ()

What is it ? Please specify.

3) How many staffs does your organization have?

Number of staffs:

1.Total

- (METU) 3,000
- (ITUF) Faculty members:88; Research Assistants:60
- (BUKO) Nearly 125

2. Research/Technical

(METU) 750

(BUKO) 80

3. Administration

(METU) 2,200

(BUKO) 40 or 45

(2) Activities, responsibilities and organization chart

1) What are the main activities and responsibilities of your organization?

(MPWS) 1) Recording and analysis of strong and weak EQ ground motion

2) Seismicity studies

3) Damage evaluation, Repair and strengthening techniques

4) General consultation for EQ resistant design of structures.

(METU) A state university

(ITUF) Education both at undergraduate and graduate levels; and research in civil Engineering problems

(BUKO) Researches and observations on Astronomy and Earth Sciences. Education on Geophysics and Earthquake Engineering for post graduate students.

* If you have your organization chart, please attach it.

(3) Relation with Japan

1) How many of your staff members have participated in JICA training course in the past? And what were the Courses they participated in.

1. Total

(METU) In civil engineering we have had approx six

(ITUF) 9

(BUKO) 10 or 12

2. GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING

(METU) 3

(ITUF) 1

3. Other JICA's Courses

(METU) 3

(ITUF) 8

2) Does your organization have any joint project or program (research/training) with Japanese institute(s) except JICA?

Yes (MPWS)(METU)(ITUF)(BUKO)

No ()

If it does, could you please specify the name of program and/or project?

(MPWS) Establishment of a Disaster Prevention Research Center

(METU) We have an agreement of academic exchange between University of Tokyo and METU especially in earthquake related research.

(ITUF) Japanese International Cooperation for the Establishment of the Earthquake Disaster Prevention Research Center in the Republic of Turkey

(BUKO) Earthquake Prediction Studies in the western extension of North Anatolian Fault Zone.

3) Does your organization have any relationship with any other countries similar to JICA's training?

Yes (MPWS)(METU)(BUKO)

No (ITUF)

Please specify the name of program and/or project, if possible.

(MPWS) Earthquake Predict in Studies with Germany

(METU) There are approx. 30 protocols of academic exchanges.

(BUKO) "Turkish Deceatancy Project" with British Geological Survey, England

4) Do you have any request about a joint program and/or project with Japanese research institute?

Yes (METU)(BUKO)

No (MPWS)(ITUF)

In case of "Yes", what is it?

(METU) See above. (Univ. Tokyo agreement)

(BUKO) We are very happy to have a co-operative project with Japanese scientists. We would like to have technical aid from JICA.

II. APPLICATION AND NOMINATION OF CANDIDATE TO JICA TRAINING COURSE

(1) Procedure of selection

1) Please let us know the procedure of candidate nomination

(METU)(ITUF)(BUKO)

The organization advertise for candidate and judge from his/her aptitude and qualification

() After judging from staff's aptitude and qualification, the organization order the candidate to go to Japan

() Others (Please specify the procedure below)

2) How long did it take you to choose the final candidate(s) for the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING?

within one month (METU)(ITUF)(BUKO)

more than one month ()

If it took more than one month, how many months?

3) What are the standards and qualification of candidate selection for the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING?

Please choose any out of the following.

present post of candidate

(MPWS)

research record

(MPWS)(METU)(ITUF)

service record

(MPWS)

educational background

(MPWS)(METU)(ITUF)

intention

(MPWS)(METU)

interchange between the training institute

(BUKO)

others (Please specify below.)

()

(2) General Information (G.I.): brochure of the course from JICA

1) Did you get enough information from the "G.I." for selecting final candidate(s) for the training course?

Should any other piece of information be added to the "G.I."?

Yes, it is enough. (MPWS)(METU)(ITUF)(BUKO)

No, it is not enough. ()

In cases of "No", please specify the information to be added.

2) Do you usually receive "G.I." well in advance?

Yes (MPWS)(BUKO)

No, it arrives late. (METU)(ITUF)

(3) Number of prospective applicants/candidates

1) How many applicants/candidates do you have every other year for the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING?

(METU) Potentially 2-3 but the notice do not always arrive in a timely way

(ITUF) Not known in advance; It is seldomly announced in the university. Usually it is announced in the related ministry (Ministry of Construction)

(BUKO) One or two

2) How many staffs in your organization do you consider are adequate for participation in the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING in the future?

(ITUF) About ten

(BUKO) One

III. EVALUATION OF THE TRAINING PROGRAM

(1) Results/achievements of the training

Have you found any good results/achievements in your staff after the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING at the point of the following? Please specify if available.

a) the method of researching

(METU) Our staff is usually able to assimilate well knowledge they receive in Japan.

(BUKO) New text book, new software and its use.

b) the knowledge/technique

(METU) The manner of conducting research in Japan. (Which depends on large budgets and well qualified personnel) is much highly regarded

(BUKO) New idea about instrumental developments.

c) Others

(2) Applicability of the knowledge/technique obtained through the training in Japan

1) Are ex-participants applying the knowledge/technique obtained through the training in Japan to their works back at home country?

a lot ()

to some extent (MPWS)(METU)(ITUF)(BUKO)

no application ()

2) If there are some examples of good application, please specify them.

(BUKO) Especially text books on given lectures and also new softwares for computer applications are very useful.

3) In case of "no application", why do you think the reason?

4) Do you try to assign ex-participants to responsibilities/posts where they can make good use of the knowledge/technique obtained through GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING?

Yes (MPWS)(METU)(BUKO)

No ()

(ITUF) Yes and No. Not always!

5) In case of "Yes", please give an concrete example.

(METU) Other than purely academic sometimes enter in the utilization of trained personnel.

(ITUF) One ex-participant is the director of the structural & Earthquake Engineering laboratory

(BUKO) They realized an important development on their seismological works.

(3) Expectations for future JICA programs

1) Would you like to continue sending your staff to participate in GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING?

Yes (MPWS)(METU)(ITUF)(BUKO)

No ()

2) In case of "Yes", what/how intense are your expectations?

(METU) Our expectation center on adding personnel to our rosters, capable of appreciating a proper research / education environment such as they have been exposed to in Japan.

(ITUF) Training at any level is necessary!

(BUKO) to follow know-how technology in Japan.

(4) Compare with other programs (other similar training offered by another organization)

How do you evaluate GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING compare with other one?

- level of content:

high (METU)(BUKO)

low (MPWS)

neither ()

- length:

long ()

short (METU)(BUKO)

neither (MPWS)

- quantification:

difficult (METU)

easy (BUKO)

neither (MPWS)

- number of participants

many (METU)
not many (METU)(BUKO)
neither (MPWS)
(ITUF) No such a training course is available from other countries.

IV. IMPROVEMENT OF FUTURE GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING

- (1) Knowledge or technique that your organization hopes participants to obtain from the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING.

In future, what sort of knowledge/technique would you expect your training participants to acquire from the future GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING?

(ITUF) New techniques for earthquake resistant design of buildings.

(BUKO) To bring new knowledge which will be useful for our organization.

- (2) Improvements of the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING

If you have any opinions/comments regarding the improvements of future courses, please specify as to the following.

a) Duration of program

(METU) A more self contained program.(possibly accommodating fewer people might be designed.

(BUKO) O.K.

b) Curriculums

(MPWS) There should be more courses of longer duration directly related to the topic of the seminar, less on elementary subject.

(METU) OK

(BUKO) O.K.

c) Contents of training

(MPWS) 1) Lecture on topics of the seminar, examples of research activities and applications directly related to the subject of the seminar.

(METU) OK

(BUKO) O.K.

d) Technique levels

(MPWS) as high as possible

(METU) OK

(BUKO) O.K.

e) Others

(MPWS) The participants should be of high technical level and experience.

V. JICA AFTER-CARE

JICA conducts after-care services for ex-participants of the GROUP TRAINING COURSE IN THE SEMINAR ON SEISMOLOGY AND EARTHQUAKE ENGINEERING. If you (as an organization) have any opinions/requests concerning this services. Please specify here.

(BUKO) No problem

VI. MAJOR PROBLEMS OF TECHNOLOGY FOR EARTHQUAKE DISASTER PREVENTION MEASURES IN YOUR COUNTRY

Please describe the present problems in your country and/or in your organization.

- (MPWS) Earthquakes in Turkey take a great toll: The buildings are not designed according to the EQ. Res. design code and constructed according to the engineering principles. The design and construction quality control is very low or almost not existent. Improper or lack of quality control result in very low strength buildings against EQ's. So buildings collapse very easily and cause a lot of loss of life and property . The solution would be to improve construction quality by effective control and preventing the construction and use of low quality buildings through clear and efficient control mechanisms with authority and responsibility, so that in case of below standard construction there would be somebody responsible for it and who would be punished for his negligence, criminal intent etc.
- (METU) The major problem with regard to disaster prevention in Turkey is in urgent to enforcement of knowledge.
- (ITUF) Some of the present problems,
1) Training people for earthquake preparedness
2) Earthquake Resistant Design & Construction of Buildings and Project Control

VII. REQUEST TO JICA

If you have any request to JICA, please specify here.

* About the person filled in the questionnaire

Date:

- (MPWS) 3 Jun. 1998
(METU) 27.May. 1998
(ITUF) 5 Jan. 1999
(BUKO) 11 Jun. 1998

Position:

- (MPWS) Chief of EQ Engineering section
(METU) Civil Engineering
(ITUF) Chairman of the Department of Civil Engineering
(BUKO) Assoc. Prof. Instructor

Printed name:

- (MPWS) Nejat BAYULKE
(METU) Polat GULKAN
(ITUF) Hasan BODUROGLU
(BUKO) S. BALAMIR UGER

FOLLOW-UP SURVEY FOR EX-PARTICIPANTS OF TRAINING COURSE
 TSUKUBA INTERNATIONAL CENTER (TBIC)
 JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 AND
 INTERNATIONAL INSTITUTE OF SEISMOLOGY AND EARTHQUAKE
 ENGINEERING (IISEE), BUILDING RESEARCH INSTITUTE (BRI)

**QUESTIONNAIRE FOR EX-PARTICIPANT
 ON
 GROUP TRAINING COURSE
 IN
 SEISMOLOGY AND EARTHQUAKE ENGINEERING II**

I. PERSONAL DATA

(1) Name in full

Prof., Dr., Ms., Mr		Age	Sex
Mr. Muhammad Rafiq	(Mu.R)	49	Male
Mr. Abudul Qayoom Khan	(Ab.Q)	49	Male
Mr. Syed Ali Zaid Zaid	(Sy.A)	50	Male
Mr. Umar Hayat Shalib	(Um.H)	52	Male
Mr. Arif Mahmood	(Ar.M)	44	Male
Mr. Muhammad Rashed Pervaiz	(Mh.R)	46	Male
Mr. Muhammad Asghar	(Mu.A)	47	Male
Mr. S.I.H-S.Bunbari	(Si.H)	46	Male
Mr. Tariq Mahmood	(Ta.M)	43	Male
Mr. Shehzad Atta Shaheen	(Sh.A)	35	Male
Mr. Muhammad Ameen	(Mh.A)	37	Male
Mr. Nadeem-Ul-Haq	(Na.U)	40	Male

(2) Home address

- (Mu.R) House No.3, Cat III, Geophysical colony, Brewery Road P.O.Box No.2, Quetta, Pakistan
- (Ab.Q) 41-C, Billy's Homes, University Road, Karachi, Pakistan
- (Sy.A) House No.6, Street No.6, Ichhra, Lahore, Pakistan
- (Um.H) H. No.1, Waqas street, Mujahid chowk, Mohalla Baghwala, Jhang Sadar, Pakistan
- (Ar.M) House No.A-3/86, Sherton square, University Road, Karachi, Pakistan, 75270
- (Mh.R) C/O Glacier Inter National, Tajpura, Daraarain, Sialkot, Pakistan
- (Mu.A) 325-D-Faisal Town, Lahore, Pakistan
- (Si.H) Gulastan-E-Juhar Block No.4, Flat No.16/A, Pakistan
- (Ta.M) House 114, Street 37, F-10/1, Islamabad, Pakistan
- (Sh.A) House No.DN-24 Dhoke Gangal Krl Road, Rawalpindi, Pakistan
- (Mh.A) House No.413, Street No.7, Islamabad, Pakistan
- (Na.U) F-1047, 6th Road Satellite Town, Rawalpindi, Pakistan

(3) Year of your participation on GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II

(Mu.R) 1977-78

- (Ab.Q) 1978
- (Sy.A) 1980-81
- (Um.H) 1984
- (Ar.M) 1985-86
- (Mh.R) 1986-87
- (Mu.A) 1987-88
- (Si.H) 1988-89
- (Ta.M) 1991-92
- (Sh.A) 1992-93
- (Mh.A) 1993-94
- (Na.U) 1995-96

II. YOUR PRESENT ORGANIZATION OUTLINE

(1) Name, type of organization and size

1) Name of your organization

- (Mu.R) Geophysical Centre
- (Ab.Q) Pakistan Meteorological Department (P.M.D.)
- (Sy.A) Pakistan Meteorological Department
- (Um.H) Pakistan Meteorological Department
- (Ar.M) Pakistan Meteorological Department
- (Mh.R) Geological Survey of Pakistan
- (Mu.A) Geological Survey of Pakistan
- (Si.H) Pakistan Meteorological Department
- (Ta.M) Micro Seismic Studies Programme-Pakistan Atomic Energy Commission
- (Sh.A) Micro Seismic Studies Programme-Pakistan Atomic Energy Commission
- (Mh.A) Chashma Nuclear Power Project Pakistan Atomic Energy Commission (C & STD)
- (Na.U) Water and Power Development Authority (WAPDA)

Address:

(Street and Number)	(City)	(State/Country)	(Postal Code)
(Mu.R) Brewery Road, P.O.Box No.2,	Quetta,	Pakistan	
(Ab.Q) Meteorological Complex, University Road,	Karachi,	Pakistan,	75270
(Sy.A) Meteorological office, Airport	Lahore,	Pakistan	
(Um.H) D.G.Camp office sector-h/8, P.O.Box No.1214,	Islamabad,	Pakistan	
(Ar.M) P.O.Box No.8454, Meteorological Complex, University Road,	Karachi,	Pakistan,	75270
(Mh.R) 83-D, Model Town,	Lahore,	Pakistan,	57000
(Mu.A) 83-D, Model Town,	Lahore,	Pakistan,	57000
(Si.H) Regional Meteorological Centre,	Karachi,	Pakistan	
(Ta.M) Pinstech P.O. Nilore,	Islamabad,	Pakistan	
(Sh.A) Pinstech P.O. Nilore,	Islamabad,	Pakistan	
(Mh.A) Chasnuppl, P.O.Box No.1133,	Islamabad,	Pakistan	
(Na.U) Wapda House,	Lahore,	Pakistan	

(Telephone)	(Facsimile)	(Cable/Telex)	(E-mail)
(Mu.R) 853032	92-81-853032	Geophysics	pmdz@paknet3.ptc.pk
(Ab.Q) 21-8114053	21-8112887		pmdcomp@paknet3.ptc.pk
(Sy.A) 6651629			
(Um.H) 256274/256198	250942		
(Ar.M) (92-21)8112880	(92-21)8112885	29832 Met Hq pk	pmd@paknet3.ptc.pk
(Mh.R) 042-5830270	042-5830270		
(Mu.A) 042-853102	042-5830270		
(Si.H) 4570770			
(Ta.M) 92-51-9202188	92-51-9290275		tariq@mssp.org.pk
(Sh.A) 92-51-9290271	92-51-9290275		atta@mssp.org.pk
(Mh.A) 92-51-9205600	92-51-9217864	54140 CNPP PK	chashma@paknet2.ptc.pk
(Na.U) 042/9202211-20			

2) Your present title in your organization

- (Mu.R) Director
- (Sy.A) Meteorologist
- (Um.H) Meteorologist
- (Ar.M) Deputy Director
- (Mh.R) Geophysicist
- (Mu.A) Geophysicist
- (Si.H) Meteorologist
- (Ta.M) Principal Geologist
- (Sh.A) Senior Engineer
- (Mh.A) Senior Engineer
- (Na.U) Seismologist

If your title changed after your GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II participation, please describe recent two titles and activities.

Latest Title

- (Mu.R) Director
- (Ab.Q) Director, C.D.P.C.
- (Sy.A) Meteorologist
- (Ar.M) Deputy Director
- (Si.H) In charge of observatories section of P.M.D.
- (Ta.M) Principal Geologist
- (Sh.A) Senior Engineer

Name of organization

- (Mu.R) Geophysical Centre, Pakistan Meteorological dept.
- (Sy.A) Pakistan Meteorological Department
- (Ar.M) Pakistan Meteorological Department
- (Ta.M) Micro Seismic Studies Programme (MSSP)

(Sh.A) Micro Seismic Studies Programme (MSSP)

Period

- (Mu.R) from 1996 to date
- (Ab.Q) from Jan.96 to
- (Sy.A) from 1989 to 1998
- (Ar.M) from 1989 to up till now
- (Ta.M) from 1994 to date
- (Sh.A) from 1995 to date

Activities

- (Mu.R) Controlling offer of seismological Status, geomagnetic Observatory and many other.
- (Ab.Q) Head of C.D.P.C.
- (Sy.A) Forecasting of weather
- (Ar.M) In charge of Coordination Section of PMD
- (Si.H) Look to the matters of the observatories located in Sind and Bahbistan
- (Ta.M) To monitor seismic activities, data acquisition & related research work.
- (Sh.A) To monitor seismic activities, data acquisition & related research work.

Previous Title

- (Mu.R) Deputy Director
- (Ab.Q) Deputy Director, Institute of Meteorology & Geophysics (IMG)
- (Sy.A) Assistant Meteorologist
- (Ta.M) Senior Geologist
- (Sh.A) Assistant Engineer

Name of organization

- (Mu.R) Poluistan Meteorological Dept UARS Peshawu
- (Sy.A) Pakistan
- (Ta.M) Micro Seismic Studies Programme (MSSP)
- (Sh.A) Micro Seismic Studies Programme (MSSP)

Period

- (Mu.R) from 1987 to 1996
- (Ab.Q) from to Dec.95
- (Sy.A) from 1977 to 1989
- (Ta.M) from 1986 to 1994
- (Sh.A) from 1990 to 1995

Activities

- (Mu.R) Controlling offer of Seismological Station Peshawar and many others.
- (Ab.Q) Senior Instructor
- (Sy.A) Worked in Seismic observatory and Geomagnetic observatory Quetta and Gilgit
- (Ta.M) Same as above
- (Sh.A) Same as above

3) Please indicate the type of your present organization. Please choose out of the following items.

- a) Governmental (Mu.R)(Ab.Q)(Sy.A)(Um.H)(Ar.M)(Mh.R)(Mu.A)(Si.H)(Mh.A)
- b) Semi-Governmental (Ta.M)(Sh.A)(Na.U)
- c) Private ()
- d) Other Type ()

What is it? Please specify

(Mu.R) This monitors the earthquakes determination of various parameters of earthquakes and many others.

(Sy.A) Pakistan Meteorological Department

(Um.H) Pakistan Meteorological Department, Aviation Division

(Ar.M) Governmental

(Si.H) Governmental

(Mh.A) Research and Development in peaceful use of Nuclear Sciences

4) How many staffs does your organization have?

Number of staffs

(Mu.R) 121

(Ab.Q) 2192

(Sy.A) 2500

(Um.H) about 2500

(Ar.M) 2192

(Si.H) 2192

(Ta.M) 96

(Sh.A) 96

(Mh.A) about 500

(Na.U) Thousands

(2) Activities, responsibilities and organization chart

What are the main activities of your organization and what are your activities and responsibilities in it?

(Mu.R) Seismology Section

- 1) Recording of worldwide seismic events on short & long period seismic grams.
- 2) Determination of epicentre, magnitude, intensity, depth, focal mechanism of all prominent earthquakes and preparation of bulletin, etc.

(Ab.Q) Main activities of P.M.D. consist of generation, processing, archiving, exchange and dissemination of meteorological and geophysical data to researchers, planners and other end-users, C.D.P.C. deals in processing and dissemination of meteorological, climatological and astrophysical data.

(Sy.A) Collection of Meteorological, Seismic, Geomagnetic Ozone and Solar radiation data, Weather forecasting and Flood Forecasting.

(Um.H) Recording & collection of climatological, Meteorological, Agrometeorological and Geophysical (ozone, solar radiation, Geomagnetic & Seismic) data, issue of Weather forecasts & advisories for civil aviation and general public, including farmers, flood forecasting, supply of all type of above data to national & international and users. Since 1976 to 1992 worked in various capacities in the Seismic Section of Geophysical Centre, Quetta from 1992 to 1996 as meteorologist at Seismic Observatory Islamabad from Jan. 1997 to date as meteorologist incharge at Regional agromet Centre Faisalabad.

(Ar.M) Main activities of Pakistan Meteorological Department are generation, processing, archiving, exchange and dissemination of meteorological and geophysical data. Presently I am coordinating officer of different units within PMD and other government & private organizations and also dealing officer with international organization like WMO, JICA, SAARC etc.

(Mu.A) To carry out Geophysical and Geological investigations. Chemical analyses and drilling, etc.

(Si.H) I am in charge of observatories section and sealing the matters of observatories

- located in Sind and boluesnstam provinces under the control of R.M.C Karachi.
- (Ta.M) To monitor seismic activities, data acquisition and related research work such as seismotectonic studies, Seismic Risk Assessment around the Chashma Nuclear Power Plant Site, proposed Kalabagh Dam Site & other vital facilities. Supervision of seismic recording lab & back-up of digital wave form data.
- (Sh.A) Installation/Maintenance of Seismic Network, Monitor Seismic Activities, data acquisition and related research work such as seismic risk. Recording tabulation analysis of seismic data for precautionary measures for nuclear power plants site.
- (Mh.A) The main activities of our office is to manage the construction of CHASNUPP, QA/QC of construction, design review, operation & maintenance of the Plant during power generation. I was involved in the geotechnical investigation studies of the Site & coo design review of some structures.
- (Na.U) Production and distribution of hydro & thermal power, investigation & development of water resources construction of dams & their maintenance. My responsibility is retrieval & interpretation of seismic & strong motion data.

* If you have the organization chart, please attach it. (if available)

III. EVALUATION OF GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II

(1) Ex-participant's evaluation of the course

- 1) Do you think the participation in the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II has been useful to your carrier?

To what extent were your expectations satisfied? Please check.

Curriculum:

Very good (Mu.R)(Um.H)(Mh.R)(Mh.A)
 Good (Sy.A)(Ar.M)(Mu.A)(Si.H)(Ta.M)(Sh.A)(Na.U)
 () Fair () Poor () Very Poor

Course Management:

Very good (Mu.R)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Mh.A)
 Good (Sy.A)(Ar.M)(Si.H)(Na.U)
 () Fair () Poor () Very Poor

Contents:

Very good (Mu.R)(Um.H)(Sh.A)(Na.U)
 Good (Sy.A)(Ar.M)((Mh.R)(Mu.A)(Si.H)(Ta.M)
 Fair (Mh.A)
 () Poor () Very Poor

Training Methodology:

Very good (Mu.R)(Um.H)(Mh.R)
 Good (Sy.A)(Ar.M)(Mu.A)(Si.H)(Ta.M)(Sh.A)(Mh.A)
 Fair (Na.U)
 () Poor () Very Poor

- 2) If your answer is "Fair", "Poor" and "Very poor", please explain your answer briefly.

(Mh.A) Because some contents are not necessary and supposed to be taught in engineering course of bachelor degree, while on the other hand some are irrelevant to me.

(Na.U) There should be at least two lectures per day on two different topics. One before lunch & one after.

- 3) After the participation in the GROUP TRAINING COURSE IN SEISMOLOGY AND

EARTHQUAKE ENGINEERING II, have you had any personal promotion in your position.

Yes (Mu.R)(Sy.A)(Um.H)(Ar.M)(Si.H)
No (Mh.R)(Mu.A)(Ta.M)(Sh.A)(Mh.A)(Na.U)

In case of "Yes", and if possible, please briefly mention how and when?

- (Mu.R) At the time of GTC in seismology & Earthquake Engineering, I was a meteorologist (Seismologist) after that I got two promotions from Meteorologist to deputy Director and to Director.
- (Ab.Q) According to seniority in the organization on 31.05.1987
- (Sy.A) Routine promotion according to seniority.
- (Um.H) Promoted from Assistant Meteorologist to Meteorologist on Seniority -cum- fitness basis on 31.05.1989.
- (Ar.M) According to the seniority in the organization on 26.5.1989.
- (Si.H) According to the seniority in the Department

4) After the participation in the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II, have you been trying to share the knowledge and technique obtained through the training with other staff in your organization?

Yes (Mu.R)(Um.H)(Ar.M)(Mh.R)(Mu.A)(Si.H)(Ta.M)(Sh.A)(Mh.A)(Na.U)
No (Sy.A)

In the case of "Yes", please give an example to illustrate specifically how?

- (Mu.R) I imparted a training course in Seismology & Geomagnetism to the trainees at institute of meteorology & Geomagnetism.
- (Ab.Q) By imparting training at I.M.G.
- (Sy.A) Different type of work at present.
- (Um.H) 1) Twice imparted "on the Job Training " to department trainees in Seismology right from interpretation of Seismograms to the preparation of weekly / monthly Seismic bulletins.
2) Prepared lists of significant Historical earthquakes (25 AD to 1905) and significant instrumentally located earthquakes (1905 to 1990) of Pakistan with the Support & cooperation of other staff members of seismic section at GC Quetta.
- (Ar.M) Instructor of special course in Seismology at the Institute of Meteorology & Geophysics, Karachi.
- (Mh.R) 1) Interpretation of Seismic data acquired by weight dropping, etc.
2) By studying fault plane solutions of large earthquakes occurred in different parts of the country.
- (Mu.A) 1) I have taught them how to prepare the fault plane solutions.
2) Interpretation of Seismic data.
- (Si.H) In charge of the Seismic Section or Geophysical Centre Quetta
- (Ta.M) In 1991 we have shifted our recording system from analog to digital with the help of IASOPEI software. The training helps me to teach my technical staff how to analyse the digital wave form data and other related software.
- (Sh.A) In the light of knowledge in Group Training Course I have improved the detectability of over seismic network which validity of seismic data increase.
- (Mh.A) to interpret the results of dynamic response analysis of power plant structure & flue stack.
- (Na.U) There are many examples but briefly, I shared the knowledge about phase picking, source mechanism, use of computers in seismology etc.

* Following (2) and (3), the meanings of "the knowledge and technique" are themselves and also

include the method of researching.

(2) Technical improvement

- 1) Have your knowledge and technique improved through the participation in the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II?

Fairly (Mu.R)(Um.H)(Ar.M)(Mh.R)(Mu.A)(Si.H)(Ta.M)(Sh.A)(Na.U)
Somewhat (Sy.A)(Mh.A)
No ()

- 2) In case of "Fairly" or "Somewhat", please give an example(s) of the knowledge and technique newly acquired through the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II.

- (Mu.R) A new technique of determination of magnitude from total duration of useillation(?) of body waves was modified all seismic stratum in Pakistan.
(Ab.Q) The subject was studied for the first time at IISEE with background of physics & Mathematics.
(Sy.A) Improvement in subject background and analysis of local and teleseismic earthquakes.
(Um.H) 1) Preparation of macro and micro Seismic zoning maps.
2) Preparation of PC-1 for telemetry Seismic networks at Karachi & Islamabad.
(Mh.R) Before the training I had a little knowledge about the subject of seismology.
(Mu.A) Interpretation of Seismological data and analyses of local earthquakes.
(Ta.M) During Course & especially during individual study, the knowledge obtained "Source Mechanism & Computer Data Processing".
(Sh.A) The technique of computer based data acquisition Programme is fairly helpful in up gradation of our seismic network.
(Mh.A) It helps understand the results in form of response spectra and mode shapes etc.
(Na.U) There were many subjects about which I had no earlier knowledge so I gained a lot of Seismicity & statistics.

- 3) If you do not think you improved/acquired any new/obvious knowledge and technique, what do you consider the reasons? Please choose any out of the following items.

Difference between levels of training:

- too high () too low ()
Language barrier ()
No interest in the training contents ()
Problems in method of instruction ()
Other reasons

(Um.H) in the light of 10 moments under technical improvement no comments offered.

Please specify

(3) Applicability

- 1) Have the knowledge and technique you acquired through the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II been useful and applicable to your current work? Please choose one.

Fully ()
Mostly (Mu.R)(Um.H)(Ar.M)(Si.H)(Ta.M)(Sh.A)
Partly (Mh.R)(Mu.A)(Mh.A)(Na.U)
Slightly (Sy.A)

Not at all ()

2) In case of "Fully", "Mostly" and "Partly", please specify what knowledge and/or technique are useful and applicable?

- (Mu.R) Knowledge & Technique received in Japan on mostly useful of applicable to our work.
- (Um.H) 1) Post earthquake survey reports
2) Construction of isoseismal maps.
3) Calibration of seismographs.
- (Mh.R) Seismicity studies of different earthquake prone areas of the country are carried out in order to take measures to mitigate possible earthquake hazards.
- (Mu.A) Study of Seismicity and local earthquakes.
- (Ta.M) Computer Data Processing, Seismicity, Seismotectonic Studies and other related Seismological Studies.
- (Sh.A) Most of technique acquired through the course is very useful especially in computer data processing and seismotectonic studies of specific region.
- (Mh.A) It is actually near to slightly, because most of the work is finished & we are looking for more related assignments. Anyway it helps to review the seismic design of nuclear power plant buildings.
- (Na.U) Mathematics, computers, seismometer, earthquake source, Seismicity, prediction of E.Q. etc.

3) In case of "Slightly" and "Not at all", what are the main causes?

- (Sy.A) Different type of work at present
- () Techniques level gap(s)
- () Difference in technical background (Methods etc.)
- () Others

Please specify.

(Sy.A) Working as duty forecasting officer at present.

4) Which subject of GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II was most beneficial to your job?

- (Mu.R) 1) Determination of earthquake
- (Ab.Q) Computer Programming
- (Sy.A) Seismometry
- (Um.H) Seismometry
- (Ar.M) Observatory Practice and computer programming
- (Mh.R) 1) Focal Mechanism Studies.
2) Seismic Prospecting.
- (Si.H) Observatory Practice
- (Mu.A) (1) Data processing (2) analyses of local earthquakes
(3) Focal Mechanism (4) Seismic prospecting
- (Ta.M) Seismometry, Seismic Waves, Earthquake Source Mechanism.
- (Sh.A) Analysis of local earthquake, seismic waves, Earthquake source mechanism.
- (Mh.A) Dynamic soil structure interaction.
- (Na.U) Local Earthquake analyses, computer programming, Seismicity & statistics.

5) Have you ever reported a research paper and/or presented orally at an academic meeting concerned with the research result through the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II?

Yes (Mu.R)(Mh.R)(Ta.M)(Na.U)

No (Sy.A)(Um.H)(Ar.M)(Mu.A)(Si.H)(Sh.A)(Mh.A)

In case of "Yes", please give the name of the research paper and/or the academic meeting.

- (Mu.R) Rudy wave magnitude of earthquakes in Pakistan and public head in the reportable 15 journal bulletin of IISEE.
- (Mh.R) A research paper entitled, "Time-term Analysis of Natural Earthquake Data and crustal structure" approved for presentation in FIRST INTERNATIONAL CONFERENCE ON SEISMOLOGY EARTHQUAKE ENGINEERING, MAY 27 29, 1991 TEHERAN, I.R.IRAN
- (Ta.M) Presented a Paper on Seismic Observation System in Pakistan in the workshop of World Lab. Project Plant-I at Erice, Sicily, Italy from May 2-6, 1994.
- (Na.U) The local meeting of our seismologists & geologists.

(4) Evaluation of the each subject

- 1) Considering your present research activity, which subjects of the GROUP TRAINING COURSE IN SEISMOLOGY AND EARTHQUAKE ENGINEERING II were beneficial? Please think about the beneficialness and necessity of the subjects described below (based on the curriculum of the FY1994-1995), then put a circle around A, B or C. If you have any comments on each subject, please write in the margin.

*beneficialness of the subject : A: very good B: fair C: poor
necessity of the subject : A: need B: no need

For Seismology Course

Subjects

Background

Guidance

beneficialness A(Um.H)(Ar.M)(Mh.R)(Si.H)(Na.U) ·
B(Mu.R)(Sy.A)(Mu.A)(Ta.M)(Sh.A) · C

necessity A(Mu.R)(Sy.A)(Um.H)(Ar.M)(Mh.R)(Mu.A)(Si.H)(Ta.M)(Sh.A)(Na.U)
B

comment

Mathematics I

beneficialness A(Ar.M)(Mu.A)(Si.H) · B(Mu.R)(Sy.A)(Um.H)(Ta.M)(Sh.A)(Na.U) ·
C(Mh.R)

necessity A(Mu.R)(Sy.A)(Um.H)(Ar.M)(Mu.A)(Si.H)(Ta.M)(Na.U) ·
B(Mh.R)(Sh.A)

comment (Um.H) Text of basic nature, which needs to be improved.

Mathematics II

beneficialness A(Ar.M)(Mu.A)(Si.H) · B(Mu.R)(Sy.A)(Um.H)(Ta.M)(Sh.A)(Na.U) ·
C(Mh.R)

necessity A(Mu.R)(Sy.A)(Um.H)(Ar.M)(Mu.A)(Si.H)(Ta.M)(Na.U) ·
B(Mh.R)(Sh.A)

comment (Um.H) Text of basic nature, which needs to be improved.

Computer Programming

beneficialness A(Mu.R)(Um.H)(Mh.R)(Ta.M)(Na.U) ·
B(Sy.A)(Ar.M)(Mu.A)(Si.H)(Sh.A) · C

necessity A(Mu.R)(Sy.A)(Um.H)(Ar.M)(Mh.R)(Mu.A)(Si.H)(Ta.M)(Sh.A)(Na.U)
B

comment

Data Processing

- beneficialness* A(Mu.R)(Um.H)(Mu.R)(Mu.A)(Ta.M)(Sh.A)
B(Sy.A)(Ar.M)(Mh.R)(Si.H)(Na.U) · C
- necessity* A(Mu.R)(Sy.A)(Um.H)(Ar.M)(Mu.R)(Mh.R)(Mu.A)(Si.H)(Ta.M)(Sh.A)
(Na.U) · B
- comment*

Seismometry

Local Earthquake Observation

- beneficialness* A(Mu.R)(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B · C
- necessity* A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
- comment*

Analyses of Local Earthquake

- beneficialness* A(Mu.R)(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Na.U) · B(Sh.A) · C
- necessity* (Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
- comment*

Analyses of Teleseismic Records

- beneficialness* A(Mu.R)(Sy.A)(Mh.R)(Ta.M)(Na.U) · B(Um.H)(Sh.A) · C(Mu.A)
- necessity* A(Sy.A)(Um.H)(Mh.R)(Ta.M)(Sh.A)(Na.U) · B(Mu.A)
- comment*

Observatory Practice

- beneficialness* A(Mu.R)(Mh.R)(Ta.M)(Sh.A) · B(Sy.A)(Um.H)(Mu.A)(Na.U) · C
- necessity* A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
- comment*

Seismic Waves

Theory of Seismic Waves

- beneficialness* A(Sy.A)(Um.H)(Mh.R)(Ta.M)(Sh.A) · B(Mu.R)(Mu.A)(Na.U) · C
- necessity* A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
- comment*

Simulation of Seismic Waves

- beneficialness* A(Sy.A) · B(Mu.R)(Um.H)(Mu.A)(Ta.M)(Sh.A) · C(Mh.R)(Na.U)
- necessity* A(Sy.A)(Um.H)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B(Mh.R)
- comment*

Surface Waves, Scattering and Attenuation

- beneficialness* A(Mu.A)(Ta.M) · B(Mu.R)(Um.H)(Sh.A) · C(Mh.R)(Na.U)
- necessity* A(Um.H)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B(Sy.A)(Mh.R)
- comment*

Strong Ground Motion

- beneficialness* A(Um.H)(Mu.A)(Sh.A)(Na.U) · B(Mu.R)(Sy.A)(Mh.R)(Ta.M)(Na.U)
C
- necessity* A(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U)(Na.U) · B(Sy.A)
- comment*

Earthquake Source

Earthquake Source Process

- beneficialness* A(Um.H)(Mh.R)(Mu.A)(Ta.M)(Na.U) · B(Mu.R)(Sy.A)(Sh.A) · C
- necessity* A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A) · (Na.U)B
- comment*

Practice on Source Mechanism

- beneficialness* A(Mu.R)(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Na.U) · B(Sh.A) · C

necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
comment

Seismicity

Seismicity and Statistics

beneficialness A(Mu.R)(Sy.A)(Um.H)(Mu.A)(Sh.A)(Na.U) · B(Ta.M) · C(Mh.R)
necessity A(Sy.A)(Um.H)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B(Mh.R)
comment

Practice on Seismicity

beneficialness A(Mu.R)(Sy.A)(Mh.R)(Mu.A) · B(Um.H)(Ta.M)(Sh.A)(Na.U) · C
necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
comment

Earth's Structure

Crust and Upper Mantle Structure

beneficialness A(Mh.R)(Ta.M) · B(Mu.R)(Sy.A)(Um.H)(Mu.A)(Sh.A)(Na.U) · C
necessity A(Sy.A)(Um.H)(Mh.R)(Ta.M)(Sh.A)(Na.U) · B
comment

Seismic Tomography

beneficialness A · B(Mu.R)(Sy.A)(Um.H)(Mh.R)(Ta.M)(Sh.A)(Na.U) · C
necessity A(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B(Sy.A)
comment

Seismic Prospecting

beneficialness A(Mu.R)(Sy.A)(Mh.R)(Ta.M)(Sh.A) · B(Um.H)(Mu.A)(Na.U) · C
necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
comment

Tectonics

Earthquakes and Plate Tectonics

beneficialness A(Mu.R)(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A) · B(Na.U) · C
necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
comment

Crustal Deformation

beneficialness A(Mu.R)(Um.H)(Mh.R)(Ta.M) · B(Sy.A)(Mu.A)(Sh.A)(Na.U) · C
necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
comment

Earthquakes Tectonics

beneficialness A(Mu.R)(Um.H)(Mu.A)(Ta.M)(Sh.A) · B(Sy.A)(Mh.R)(Na.U) · C
necessity A(Sy.A)(Um.H)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B(Mh.R)
comment

Earthquake Prediction and Disaster Prevention

Earthquake Prediction

beneficialness A(Mu.R)(Sy.A)(Um.H)(Mh.R)(Mu.A)(Na.U) · B(Ta.M)(Sh.A) · C
necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
comment (Um.H) Move detailed text and practice needed.

Earthquake Seismology

beneficialness A(Mu.R)(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B · C
necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
comment (Um.H) Move detailed text and practice needed.

Seismic Microzoning

beneficialness A(Um.H)(Mu.A)(Sh.A) · B(Mu.R)(Sy.A)(Mh.R)(Ta.M)(Na.U) · C

necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
comment (Um.H) Move detailed text and practice needed.

Specialized

Global Seismology

beneficialness A(Sy.A)(Um.H)(Mh.R)(Mu.A) · B(Mu.R)(Ta.M)(Sh.A)(Na.U) · C
necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
comment

Rock Experiments

beneficialness A · B(Mu.R)(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A) · C(Na.U)
necessity A(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B(Sy.A)
comment

Earthquake Geology

beneficialness A(Mu.A) · B(Mu.R)(Sy.A)(Um.H)(Mh.R)(Ta.M)(Sh.A)(Na.U) · C
necessity A(Sy.A)(Um.H)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B(Mh.R)
comment

Tsunamis

beneficialness A(Mu.R)(Sh.A) · B(Sy.A)(Um.H)(Mu.A)(Ta.M) · C(Mh.R)(Na.U)
necessity A(Sy.A)(Um.H)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B(Sy.A)(Mh.R)
comment

Volcanoes and Earthquakes

beneficialness A(Mu.R)(Sy.A)(Mu.A)(Sh.A) · B(Um.H)(Mh.R)(Ta.M) · C(Na.U)
necessity A(Sy.A)(Um.H)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B(Mh.R)
comment (Um.H) These subject did not create the desired in fewest perhaps due to the reason that Tsunamis volcanoes are not experienced in this part of the world.

Others

Special Lectures

beneficialness A(Sy.A)(Mh.R)(Na.U) · B(Mu.R)(Um.H)(Mu.A)(Ta.M)(Sh.A) · C
necessity A(Sy.A)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B(Um.H)
comment (Um.H) These subject did not create the desired in fewest perhaps due to the reason that Tsunamis volcanoes are not experienced in this part of the world.

Colloquium

beneficialness A(Um.H)(Mh.R)(Mu.A)(Ta.M)(Na.U) · B(Mu.R)(Sy.A)(Sh.A) · C
necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
comment

Observation Trips

beneficialness A(Mu.R)(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B · C
necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
comment

Study Trips

beneficialness A(Mu.R)(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B · C
necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B
comment (Um.H) more interaction between the participants and Japanese people needed

Individual Study

beneficialness A(Mu.R)(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Na.U) · B(Sh.A) · C
necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B

comment (Um.H) more interaction between the participants and Japanese people needed

Total

beneficialness A(Mu.R)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Na.U) · B(Sy.A)(Sh.A) · C

necessity A(Sy.A)(Um.H)(Mh.R)(Mu.A)(Ta.M)(Sh.A)(Na.U) · B

comment (Um.H) more interaction between the participants and Japanese people needed

For Earthquake Engineering Course

Subjects

Mathematics & Computer

beneficialness A(Mh.A) · B · C

necessity A · B(Mh.A)

comment (Mh.A) Studied in degree course

General Earthquake Engineering

beneficialness A(Mh.A) · B · C

necessity A(Mh.A) · B

comment

Structural Testing

beneficialness A(Mh.A) · B · C

necessity A(Mh.A) · B

comment

Structural Reliability

beneficialness A(Mh.A) · B · C

necessity A(Mh.A) · B

comment

Ground Vibration

beneficialness A(Mh.A) · B · C

necessity A(Mh.A) · B

comment

Strong Ground Motion

beneficialness A(Mh.A) · B · C

necessity A(Mh.A) · B

comment

Strong Earthquake Motion Observation & Design Earthquake Ground Motion

beneficialness A(Mh.A) · B · C

necessity A(Mh.A) · B

comment

Dynamic Soil-Structure Interaction

beneficialness A(Mh.A) · B · C

necessity A(Mh.A) · B

comment

Soil Mechanics

beneficialness A · B(Mh.A) · C

necessity A(Mh.A) · B

comment

Soil Test & Survey

beneficialness A · B · C(Mh.A)

<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Soil Dynamic	
<i>beneficialness</i>	A(Mh.A) · B · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Structural Analysis	
<i>beneficialness</i>	A · B(Mh.A) · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Structural Dynamic & Random Vibration	
<i>beneficialness</i>	A · B(Mh.A) · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Finite Element Method	
<i>beneficialness</i>	A · B(Mh.A) · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Limit Analysis	
<i>beneficialness</i>	A · B(Mh.A) · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Design Seismic Force	
<i>beneficialness</i>	A(Mh.A) · B · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Dynamic Aseismic Design	
<i>beneficialness</i>	A(Mh.A) · B · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Earthquake-Resistant Limit State Design for Buildings	
<i>beneficialness</i>	A(Mh.A) · B · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Seismic Response Control	
<i>beneficialness</i>	A(Mh.A) · B · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
RC Structure	
<i>beneficialness</i>	A · B(Mh.A) · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Steel Structure	
<i>beneficialness</i>	A · B(Mh.A) · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
PC Structure	
<i>beneficialness</i>	A · B(Mh.A) · C

<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Wooden Structure	
<i>beneficialness</i>	A · B · C(Mh.A)
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Foundation Engineering	
<i>beneficialness</i>	A(Mh.A) · B · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Bridge Engineering	
<i>beneficialness</i>	A · B(Mh.A) · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Infrastructures (Port & Harbor, Dam, Tunnel, Electric Facilities)	
<i>beneficialness</i>	A(Mh.A) · B · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Disaster Mitigation Planning	
<i>beneficialness</i>	A(Mh.A) · B · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Lifeline Facilities	
<i>beneficialness</i>	A(Mh.A) · B · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Earthquake-Resistant Diagnosis, Repair & Strengthening	
<i>beneficialness</i>	A(Mh.A) · B · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Colloquium	
<i>beneficialness</i>	A(Mh.A) · B · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Observation Trips	
<i>beneficialness</i>	A(Mh.A) · B · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Study Trips	
<i>beneficialness</i>	A(Mh.A) · B · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	
Individual Study	
<i>beneficialness</i>	A · B(Mh.A) · C
<i>necessity</i>	A(Mh.A) · B
<i>comment</i>	

IV. TRAINING COURSE IMPROVEMENT