

No.12040/22/2014-TRG(FTC/IR)
Government of India
Ministry of Personnel, Public Grievances and Pensions
Department of Personnel and Training
[Training Division]

Block-4, Old JNU Campus
New Mehrauli Road, New Delhi-67
Dated – May 21, 2014

TRAINING CIRCULAR

Subject: Group Training Course in “Comprehensive Bridge Engineering” to be held in Japan from September 08 to October 25, 2014 under the Technical Cooperation Programme of the Government of Japan.

The undersigned is directed to state that the Japan International Cooperation Agency (JICA) has invited applications for the above mentioned training programme to be held in Japan from September 08 to October 25, 2014 under the Technical Cooperation Programme of the Government of Japan.

2. The programme aims to enhance technical capacity of mid-level engineers who are in charge of bridge engineering (design, construction/construction supervision, maintenance and repair of bridges) in developing countries. The course topics mainly concern Steel Bridges, PC Bridges, RC Bridges, but masonry (Stone) bridges are not included.

3. The programme is designed for the staff of competent government agencies or governmental organizations responsible for bridge engineering (design, construction/construction supervision, maintenance and repair of bridges).

4. The applying organizations are expected to select those candidates who are engineers and currently engaged in bridge engineering (design, construction/construction supervision, maintenance and repair of bridges). The nominees for this course should be university graduates specialized in civil engineering or equivalent preferably with five (5) to fifteen (15) years of work experience (3 years or more in bridge engineering desirable); should not have participated in any JICA training courses in Japan in the past; should have competent command over spoken and written English; must be in good health (both physically and mentally) and must not be a part of military service.

5. In addition to above, the following information in respect of the nominated officers may please be mentioned while furnishing the nomination:-

- a) Whether attended any foreign training programme in the past? If so, the duration/detail thereof;
- b) Whether cleared from vigilance angle;
- c) Age;
- d) Whether working in North East State/J&K;
- e) A brief in 50-100 words justifying the nomination.

6. The course covers the cost of a round-trip air ticket between international airport designated by JICA and Japan; travel insurance from the time of arrival in Japan to departure from Japan; allowances for (accommodation, living expenses, outfit and shipping); expenses for JICA study tours and free medical care for participants who may fall ill after reaching Japan (costs relating to pre-existing illness, pregnancy, or dental treatment are not included).

...2/-

7. It is therefore requested that the nomination of suitable candidates may please be forwarded **(in duplicate)** in JICA's prescribed form (available in **persmin.nic.in→DOPT→Training Wing→Circular→JICA**) to this Department duly authenticated by the HOD of the concerned department in accordance with the eligibility criteria.

8. The applications should reach this Department through the Administrative Ministry/State Government not later than **June 27, 2014**. Nominations received after the prescribed date will not be considered. The details of the programme may be drawn from Ministry of Personnel, Public Grievances and Pensions' website (**persmin.nic.in**).



(N.K. Wadhwa)

Under Secretary to the Government of India

Tele.No.011-26165682

E-mail-ID naresh.wadhwa@nic.in

Copy to:

- a) The Secretary, Road Transport & Highways, Transport Bhawan, Sansad Marg, New Delhi,
- b) The Secretary, Ministry of Railways, Rail Bhavan, New Delhi,
- c) The Secretary, Ministry of Water Resources, Shram Shakti Bhavan, New Delhi,
- d) The Secretary, Ministry of Urban Development, Nirman Bhavan, New Delhi,
- e) The Chief Secretaries to all the State Governments/Union Territories(with request to circulate the same amongst their related Departments/Organizations),
- f) NIC with request to post the circular along with the JICA's circular on this Department's website.



GROUP AND REGION-FOCUSED TRAINING

GENERAL INFORMATION ON

Comprehensive Bridge Engineering

課題別研修「橋梁総合」

JFY 2014

NO. J14-04082 / ID. 1480948

Course Period in Japan: September 8, 2014 to October 25, 2014

This information pertains to one of the Group and Region-Focused Training of the Japan International Cooperation Agency (JICA), which shall be implemented as part of the Official Development Assistance of the Government of Japan based on bilateral agreement between both Governments.

I. Concept

Background

Construction of bridges is important for stable social life and economic development in the developing countries however the level of bridge engineering in those countries is not high enough. It deems essential to raise the technical knowledge and skills of personnel who is engaged in every aspects of work related to bridges in order to promote construction and repair of bridges.

The objective of this course is to contribute to promotion of bridge construction, solutions to technical problems regarding bridges and social development of participating countries by providing bridge engineering technologies of Japan to the participants.

For what?

The course aims to enhance technical capacity of mid-level engineers who are in charge of bridge engineering (design, construction/construction supervision, maintenance and repair of bridges) in developing countries. The course topics mainly concern Steel Bridges, PC Bridges, RC Bridges, but masonry(stone) bridges are not included.

For whom?

Staff of competent government agencies or governmental organizations responsible for bridge engineering (design, construction/construction supervision, maintenance and repair of bridges).

How?

Participants shall have opportunities to know improvement process of bridge engineering in Japan through lectures, observations, and discussions

Participants will also formulate an action plan describing what the participant will do after they go back to home country putting the knowledge and ideas acquired and discussed in Japan among others.

II. Description

1. Title (J-No.): Comprehensive Bridge Engineering (J14-04082)

2. Course Period in JAPAN

September 8 to October 25, 2014

3. Target Regions or Countries

Philippines, Thailand, Timor-Leste, Viet Nam, Myanmar, Mongolia, Bangladesh, India, Sri Lanka, Fiji, Papua New Guinea, Jamaica, Panama, Uganda, Tanzania, Zambia, Nepal, Zimbabwe, Mozambique

4. Eligible / Target Organization

Competent government agencies or governmental organizations responsible for bridge engineering (design, construction/construction supervision, maintenance and repair of bridges).

5. Course Capacity (Upper limit of Participants)

18 participants

6. Language to be used in this program: English

7. Course Objective:

Improved action plans which include construction or maintenance work for bridges made by central governments in developing countries are to be proposed by the section which trainees belong to.

Participants can understand and explain the following:

- (1) design of bridges (*acquisition of design technique using software is NOT included in the course objectives*)
- (2) construction and construction supervision of various types of bridges (RC, PC and steel bridges)
- (3) maintenance and repair of various types of bridges

8. Overall Goal

To improve the capacity of bridge engineering in Recipient Country, contributing to efficient and effective social infrastructure improvement.

9. Expected Module Output and Contents:

This program consists of the following components. Details on each component are given below:

| Main subject | Program/ Detail | Objective |
|--|---|--|
| A. Bridge Planning in Japan | <ol style="list-style-type: none"> 1. Roads and Bridges in Japan 2. Bridge Planning 3. Design and Construction of Long-span Bridges 4. Maintenance of Long-span Bridges | Understanding the present conditions of roads and bridges in Japan, as well as future road and bridge plans, through lectures |
| B. Design and Construction of Substructures | <ol style="list-style-type: none"> 1. Soil Surveys for Bridge Foundation 2. Design and Construction of Foundations 3. Design and Construction of Substructures | Understanding soil surveys and substructure design and construction through lectures |
| C. Design and Construction of Concrete Bridges (PC and RC Bridges) | <ol style="list-style-type: none"> 1. Design and Construction of Reinforced Concrete Bridges 2. Design and Construction of Prestressed Concrete Bridges 3. Field Trip to a PC Factory 4. Field Trip to RC Bridge Construction Site | Learning the PC and RC design and construction processes and making field trips to PC manufacturing plants so that participants are able to understand the present conditions of concrete bridges in Japan and so that what they learn in this session of training can be applied to bridges in each country |
| D. Steel Bridges | <ol style="list-style-type: none"> 1. Design of Steel Bridges 2. Fabrication and Construction of Steel Bridges 3. Field Trip to a Steel Bridge Manufacturing Plant | Learning the knowledge of steel bridge design and construction and making field trips in order to understand the bridge technology of Japan |
| E. Bridge Accessories | <ol style="list-style-type: none"> 1. Design and Construction of Bridge Accessories (Bearing and Expansion Joint) | Learning the knowledge of the design and construction for bridge accessories such as bearings and expansion joints |
| F. Bridge Maintenance and Repair | <ol style="list-style-type: none"> 1. Overview of Bridge Inspection 2. Bridge Inspection Technique 3. Repair and Strengthening of Bridges 4. Bridge Inspection Practice for Concrete Structures 5. Bridge Inspection Practice for Steel Structures 6. Maintenance for Bridges 7. Maintenance for Long-span Bridges | Recognizing the importance of bridge inspection, maintenance and repair techniques through lectures and field practice |

| Main subject | Program/ Detail | Objective |
|--|---|---|
| G. Having Discussions and Preparing Training Reports | 1. Presentation of Country Reports 2. Action Plan Presentation | Discussing issues to be addressed in participants' countries and questions that they have about bridges. Preparing reports on how issues can be solved based on the knowledge and experience acquired through this training, and presenting action plans. |

There will, however, be minor changes in several subjects.

10. Follow-up Cooperation by JICA:

In this program, JICA might extend follow-up support to participating organizations that intend to develop the result of the program further. Please note that the support shall be extended selectively based on proposals from the participating organizations.

III. Conditions and Procedures for Application

1. Expectations from the Participating Organizations:

- (1) This program is designed primarily for organizations that intend to address specific issues or problems identified in their operation. Participating organizations are expected to use the program for those specific purposes.
- (2) This program is enriched with contents and facilitation schemes specially developed in collaboration with relevant prominent organizations in Japan. These special features enable the program to meet specific requirements of applying organizations and effectively facilitate them toward solutions for the issues and problems.
- (3) As this program is designed to facilitate organizations to come up with concrete solutions for their issues, participating organizations are expected to make due preparation before dispatching their participants to Japan.
- (4) Participating organizations are also expected to make the best use of the results achieved by their participants in Japan.

2. Nominee Qualifications:

Applying Organizations are expected to select nominees who meet the following qualifications.

(1) Essential Qualifications:

- 1) Current Duties: be an engineer currently engaged in bridge engineering (design, construction/construction supervision, maintenance and repair of bridges).
- 2) Educational Background: be university graduates specialized in civil engineering or equivalents preferably with five (5) - fifteen (15) years of work experience (3 years or more in bridge engineering desirable).
- 3) Not have participated in any JICA training courses in Japan in the past.
- 4) Language: MUST have a competent command of spoken and written English (This training program includes active participation in discussions, action plan development, thus requires VERY high competence of English ability. Please attach an official certificate for English ability such as TOEFL, TOEIC etc, if possible).
- 5) Health: must be in good health, both physically and mentally, to participate in the Program in Japan.
- 6) Must not be serving any form of military service.

3. Required Documents for Application:

- (1) **Application Form:** The Application Form is available at **the JICA office (or the Embassy of Japan).**

***Pregnancy**

Pregnant participants are strictly requested to attach the following documents in order to minimize the risk for their health:

1. letter of the participant's consent to bear economic and physical risks,
2. letter of consent from the participant's supervisor, and
3. doctor's letter with permission of her training participation.

Please ask JICA Staff for the details.

- (2) Photocopy of passport:** to be submitted with the Application Form, if you possess your passport which you will carry when entering Japan for this program. If not, you are requested to submit its photocopy as soon as you obtain it.

*Photocopy should include the followings:

Name, Date of birth, Nationality, Sex, Passport number and Expire date.

- (3) Inception Report:** Each applicant is required to fill in the Inception Report on the format attached in Annex I and submit it together with the Application Form. As applicants' Inception Report will be used for the screening of applicants, applications not accompanied by a completed Inception Report will not be considered as duly qualified.

- (4) Nominee's English Score Sheet:** to be submitted with the Application Form. If you have any official documentation of English ability (e.g., TOEFL, TOEIC, IELTS), please attach it (or a copy) to the Application Form.

4. Procedure for Application and Selection :

(1) Submission of the Application Documents:

Closing date for applications: **Please inquire to the JICA office (or the Embassy of Japan).**

(After receiving applications, the JICA office (or the Embassy of Japan) will send them to **the JICA Center in JAPAN by July 7, 2014.**)

(2) Selection:

After receiving the documents through proper channels from your government, the JICA office (or the Embassy of Japan) will conduct screenings, and then forward the documents to the JICA Center in Japan. Selection will be made by the JICA Center in consultation with concerned organizations in Japan. *The applying organization with the best intention to utilize the opportunity of this program will be highly valued in the selection.*

(3) Notice of Acceptance:

Notification of results will be made by the JICA office (or the Embassy of Japan) **not later than August 7, 2014**.

5. Document(s) to be submitted by accepted participants:

Job Report -- to be submitted by **August 29, 2014**:

Before coming to Japan, only accepted participants are required to prepare a Job Report (detailed information is provided in the ANNEX "Job Report").

- (1) Each participant has approximately 20 minutes (excluding Q&A session) for the presentation of the Job Report. Each participant must give the presentation respectively even though one participant belongs to the same organization as other's organization.
- (2) Please bring along with you such audiovisual aids which may facilitate your presentation as the Microsoft PowerPoint files.

6. Conditions for Attendance:

- (1) to strictly adhere to the program schedule,
- (2) not to change the program topics,
- (3) not to extend the period of stay in Japan,
- (4) not to be accompanied by family members during the program,
- (5) to return to home countries at the end of the program in accordance with the travel schedule designated by JICA,
- (6) to refrain from engaging in any political activities, or any form of employment for profit or gain,
- (7) to observe Japanese laws and ordinances. If there is any violation of said laws and ordinances, participants may be required to return part or all of the training expenditure depending on the severity of said violation, and
- (8) to observe the rules and regulations of the accommodation and not to change the accommodation designated by JICA.

IV. Administrative Arrangements

1. Organizer:

Name: JICA Kansai

Contact: Mr. Shingo TOMITA

(Tomita.Shingo@jica.go.jp and jicaksic-unit@jica.go.jp)

2. Implementing Partner:

Name: Honshu-Shikoku Bridge Expressway Company Limited (HSBE)

Address: 4-1-22 Onoe-dori, Chuo-ku, Kobe, Hyogo Prefecture, 651-0088, Japan

TEL: 81-78-291-1000 FAX: 81-78-291-1363

URL: <http://www.jb-honshi.co.jp/english/index.html>

3. Travel to Japan:

(1) Air Ticket: The cost of a round-trip ticket between an international airport designated by JICA and Japan will be borne by JICA.

(2) Travel Insurance: Coverage is from time of arrival up to departure in Japan. Thus traveling time outside Japan will not be covered.

4. Accommodation in Japan:

JICA will arrange the following accommodations for the participants in Japan:

JICA Kansai International Center (JICA Kansai)

Address: 1-5-2, Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo 651-0073, Japan

TEL: 81-78-261-0386 FAX: 81-78-261-0465

(where "81" is the country code for Japan, and "78" is the local area code)

If there is no vacancy at JICA Kansai, JICA will arrange alternative accommodations for the participants. Please refer to facility guide of JICA Kansai at its URL, <http://www.jica.go.jp/english/contact/domestic/index.html>.

5. Expenses:

The following expenses will be provided for the participants by JICA:

- (1) Allowances for accommodation, meals, living expenses, outfit, and shipping,
- (2) Expenses for study tours (basically in the form of train tickets.),
- (3) Free medical care for participants who become ill after arriving in Japan (costs related to pre-existing illness, pregnancy, or dental treatment are not included), and
- (4) Expenses for program implementation, including materials.

For more details, please see "III. ALLOWANCES" of the brochure for participants titled "KENSU-IN GUIDE BOOK," which will be given before departure for Japan.

6. Pre-departure Orientation:

A pre-departure orientation will be held at the respective country's JICA office (or Embassy of Japan), to provide participants with details on travel to Japan, conditions of the participation in the Program, and other matters.

V. Other Information

1. Participants who have successfully completed the program will be awarded a certificate by JICA.
2. For the promotion of mutual friendship, JICA Kansai encourages international exchange between JICA participants and local communities, including school and university students as a part of development education program. JICA participants are expected to contribute by attending such activities and will possibly be asked to make presentations on the society, economy and culture of their home country.
3. Participants are recommended to bring laptop computers for your convenience, if possible. During the program, participants are required to work on the computers, including preparation of Action Plans, etc. Most of the accommodations have internet access. Also, there is a computer room in JICA Kansai where fourteen desk-top computers have the internet access.
4. Allowances, such as for accommodation, living, clothing, and shipping, will be deposited to your temporary bank account in Japan after 2 to 5 days after your arrival to Japan. It is highly advised to bring some cash / traveler's check in order to spend necessary money for the first 2 to 5 days stays after your arrival.
5. It is very important that your currency must be exchanged to Japanese Yen at any transit airport or Kansai International Airport (KIX) in Osaka, Japan soon after your arrival. It is quite difficult to exchange money after that, due to no facility or time during the training program.
6. The short trip is arranged during the program. It would be convenient if you bring small bag.
7. Participants mainly use public transportation system for traveling such as subway, public bus etc. On some occasion, participants take walking tour for on-site observation. Participants have to walk a maintenance way of a bridge for long time in this training course. For the on-site observation, please note the following attentions and bring your own shoes and clothes.
 - Please put on comfortable shoes with rubber-sole.
 - Please do not put on slippery shoes.
 - Please do not put on sandals or high heels.
 - Please do not put on skirt.
 - Please put on easy-to-act clothes.
 - Please be careful not to drop any belongings of yours.
 - Please keep your camera and cell-phone fastened around your neck with strap.

V. ANNEX

ANNEX 1 Inception Report

ANNEX 2 Job Report

ANNEX I

Comprehensive Bridge Engineering (JFY 2014)

Inception Report

All the applicants are required to fill in this form and submit together with the Application Form.

* The report should be typewritten.

Name of Applicant: _____

Country: _____

1. Please describe your career in bridge engineering.

| Period | Organization | Position/Title, Division/Department | Brief description of your work |
|----------------------------|---|--|--|
| <i>e.g.) 1990-1995</i> | <i>Ministry of Roads and Public Works</i> | <i>Engineer, Bridge Construction Section</i> | <i>Structural design of building Inspection of constructions and erection of bridges Supervising and checking of drawings for bridge constructions</i> |
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2. Please describe your current duties and responsibilities.

ANNEX II

Comprehensive Bridge Engineering (JFY 2014)

JOB Report

Accepted participants are required to prepare the Job Report providing information on the following subjects and to make its presentation with power point using photos, pictures or illustrations in order to minimize explanation with written papers. The report should be within 15 slides.

***Please send the Job Report by August 29, 2014** to the following e-mail address before participating in the program. If you fail to send it by e-mail because of large volume of data, please send it in PDF file or send submit to JICA office in your country.

1. Name of applicant
2. Country
3. Name of organization
4. Organization chart
Please attach an organizational chart and circle the section the applicant belongs.
5. Explain which organizations and/or positions are responsible for bridge engineering in each activity in the following.
1) Planning 2) Investigation 3) Design 4) Construction 5) Maintenance and Repair
6. What kind of bottlenecks do you encounter in each of the above-mentioned activity, particularly those relating to equipment, management and organization?
7. Please fill out the following chart on Road Conditions in your country.

| Type of Road | Total Length | Concrete Bridges | | Steel Bridges | | Total | |
|-------------------|--------------|------------------|--------------|---------------|--------------|--------|--------------|
| | | Number | Total Length | Number | Total Length | Number | Total Length |
| Expressways | Km | | | | | | |
| National Highways | Km | | | | | | |
| Local Roads | Km | | | | | | |
| Sub-total | Km | | | | | | |

| | | |
|-----------|----|--|
| Municipal | Km | |
| Total | Km | |

8. If there are any bridges with the longest span which is more than 200m, please indicate the bridge type.

9. Please indicate the vehicle load (including war tanks) used as a standard in designing normal types of bridges.

_____ ton/vehicle

10. Material costs (which is merely material and don't include labor, transportation or erection costs)

1) Exchange Rate: \$1 (1 US dollar) = _____ (Currency of your country)

2) Rebar (of commonly-used size and grade) \$ / tf

3) Steel plate (of commonly-used size and grade) \$ / tf

4) Ready mixed concrete (of commonly-used grade) \$ / m³

11. Please indicate the major causes of bridge damage or bridge replacement.

12. Please bring the following photos.

- Photos and plans of bridge construction projects you are working on or worked in the past and the problems you faced
- Photos of bridges under construction
- Photos of modern and old bridges in your country
- Photos in which bridge maintenance problems can be seen

13. Information about ex-participants

Please give information listed below to the extent possible on ex-participants who participated in previous courses "Comprehensive Bridge Engineering" (held after the year of 2000) or "Bridge Engineering" (held between 2005 and 2009). The list of ex-participants in each country will be given with Acceptance Notice.

1) Name of the ex-participant

2) Participating Year

3) Present Work and Post

4) Is he (or she) engaged in bridge-related work or not?

For Your Reference

JICA and Capacity Development

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

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

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

Japanese Development Experience

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

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

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

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



CORRESPONDENCE

For enquiries and further information, please contact the JICA office or Embassy of Japan.

Further, address correspondence to:

JICA Kansai International Center (JICA Kansai)

Address: 1-5-2, Wakinohama-kaigandori, Chuo-ku, Kobe, Hyogo 651-0073, Japan

TEL: +81-78-261-0386 FAX: +81-78-261-0465