General Information on APT Training Course
(Funded by Extra Budgetary Contribution of Japan)

1. **Title of Training Course:** Digital Divide Resolution at Rural Areas by Utilizing Television White Space

2. **Organization (hosted by):** Japan Telecommunications Engineering and Consulting Service (JTEC)

3. **Duration:** 9 – 20 November 2015
(excluding arrival and departure dates)

4. **Place:** Tokyo, Japan

5. **Abstract and Objectives:**

Japanese wireless broadband communications technology and its penetration rate is considered to be one of the highest levels in the world, and its benefit have reached practically every corners of the country and to the most of its population.

Japanese technology that made this rapid growth possible and knowledge learned through the experience of growth process are considered to serve as useful references for countries planning further expansion of their broadband networks.

We recognize that the ASIA-Pacific region has progressed well in broadband infrastructure and service development. However, we aware that there is still a vast digital divide in broadband penetration and ICT development among the various countries of the rural areas in particular.

We should be engaged a digital divide resolution among the APT member nations and regions based on the Ministerial Meeting of APT adopted the Brunei Darussalam Statement in September 2014, for building Asia-Pacific societies towards the construction of effective information and communications bases Smart Digital Economy.

For a solution to digital divide resolution, we take advantage of radio frequency spectrums between VHF and UHF, utilizing Television White Space (TVWS) is possible to reuse frequencies at restricted rural areas.

To cope with digital divide problem at rural areas, the use of TVWS makes it possible to improve rural broadband connectivity and promote affordable public broadband access service such as educations, health cares and disaster preventions.

We would therefore like to contribute to the Brunei Darussalam Statement by offering this training course to the authorities and institutions concerned with "Digital Divide

Resolution at Rural Areas by Utilizing Television White Space" in the APT member nations and regions.

In this training course, in order to reduce digital divides, the diffusion and expansion of TVWS utilization in Asia-Pacific region, current status of related policies, regulations, advanced technologies from various countries, verification tests, Japan's experiences learnt up to the present and future prospects of TVWS will be introduced through various lectures and technical observations. Also, opportunities for participants to find out and develop suitable adaptation of technologies and methodologies to their own countries through group discussions are set.

In addition, for smooth, efficient diffusion and development of TVWS network, standardization of communications technologies are considered indispensable. Therefore, the lectures and technical observations are also presented to help the participants to deepen their knowledge of standardization policies and related cooperation activities in the Asia-Pacific region.

More specifically the program of this course contains following items:
❖ Outline of TVWS policies and regulations in Japan
❖ Present status of TVWS standardization policy in Japan.
❖ Recent trends over the TVWS and its advanced technologies
❖ Policy for expansion and penetration of TVWS network in Japan
❖ Rural community broadcasting service by TVWS network
   Site observation to Nanto Channel nearby World Heritage area.
   https://www.city.nanto.toyama.jp/webapps/www/english/welcome.html
❖ Optimal planning and designing techniques of TVWS network
❖ Wireless mobile by TVWS network technologies
❖ Indoor premises and outside facilities of TVWS network
❖ Discussion sessions with Japanese specialists for studying optimal TVWS network and its installation projects coping with different cases to nations in Asia-Pacific Region.
❖ Sharing information, finding out the best solution to specific needs required in the region and the countries of each participant, building professional relationship between participants, and between participants and specialists for enhancing TVWS networks in the Asia-Pacific Region.

These items in the training are presented in the forms of lectures, technical observation visits and demonstrations.

6. **Tentative Schedule:**
    Please refer to the attached schedule, **Appendix 1**, that is subject to change for elaboration and/or adjustment.

7. **Venue:**
   Japan Telecommunications Engineering and Consulting Service (JTEC)
   Address: 8-1-14 Nishigotanda, Shinagawa-ku, Tokyo 141-0031, Japan
   URL: **http://www.jtec.or.jp/english/index.html**
   Tel: +81 3 3495 5215
   Fax: +81 3 3495 5219
   Person in charge: **Mr. Ken-ichi Sugii (e-mail: k.sugii@jtec.or.jp)**

8. **Reception at the Airport:**
   ❖ On their arrival at Narita International Airport the participants will be met by the host organization's travel agency staff and guided to their hotel.
   ❖ At the time of check-in at their hotel, the participants will be given necessary information by the host organization.

   Public Transportation and Travel Time:
   Narita International Airport (NRT) --- (100min/bus) --- Shinjuku Washington Hotel --- (40min/train) --- JTEC

9. **Hotel accommodation:**
   1: **Tokyo / Shinjuku Washington Hotel (Main Building)**
       3-2-9 Nishi-Shinjuku, Shinjuku-ku, Tokyo 160-8336, Japan
       Tel: +81 3 3343 3111
       URL: **http://www.shinjyuku-wh.com/english/**
                   http://shinjuku.washington-hotels.jp/cn/   (中文)
                   http://shinjuku.washington-hotels.jp/th/   (Thai)

   2:   **Hokuriku region (Nanto city, Toyama Prefecture) / Pre-Booking**
       URL: **http://www.tabi-nanto.jp/en/**

10. **Immigration Requirements:**
    All foreign visitors entering into Japan must have a valid passport.
    ❖ Participants requiring visa should apply to Japanese diplomatic mission (embassies and consulates etc.) in their own countries (or to Japanese diplomatic mission directly in charge of the participant's country) as soon as possible.
    ❖ Kindly check current visa requirement with the Embassy of Japan or Travel Agent before traveling, or visit the website of the Ministry of Foreign Affairs of Japan at URL: **http://www.mofa.go.jp/j_info/visit/visa/index.html**
    ❖ For your smooth visa application, visa supporting letters written in Japanese will be provided by JTEC and will be sent directly to the participants.

11. **Photograph: (submit to APT Headquarters)**
    The participants are requested to bring **one copy of a recent portrait photograph** (within 6 months) in **a size of 3 centimeters by 3 centimeters** for a participant list.

12. Country Report: (New questions might be added later on)
  ❖ The country report should include your consideration and answers to the following questions regarding how to resolve the digital divide at rural area in your country.
  ❖ If you have a published annual report of your organization or equivalent, please bring it with you and hand it to the secretariat on the first day of the course.

Part I. Personal Details of the Participant

1. Name of participant and nationality
2. Name of participant's organization and section
3. Type of organization (choose one of the following)
   a) Governmental organization (excluding public company)
   b) Public company: fully/partly state-owned company (share/ownership percentage in case of partly state-owned company) or private business organization
4. Participant's special interests in his/her professional field

Part II. Telecommunications Policy Structure
Current telecommunications and regulatory environment

1. Basic laws governing telecommunications/broadcasting businesses
2. National policy on development of broadband network including its penetration to the rural areas
3. Major challenges and problems that need to be solved in your country's telecommunications in rural areas
4. Participant's own experience and future prospects in his/her profession

Part III. Market Structure

1. Internet and Broadband Services
   a) Business license(s) required, or other restrictions on operators
   b) Number of service providers
   c) Name of the largest service provider and its share of the market
   d) Number of internet users through broadband lines (FTTx, xDSL, LTE, 3G, WiMAX and satellite communications, etc.)
   e) Internet users per 1,000 inhabitants
   f) Number of personal computers per 1,000 inhabitants

2. Internet Application Services
   a) Name of popular Internet Application Services in your country
       (i.e. Facebook, LINE, Skype, Twitter, Weibo).
   b) Future program and schedule of e-government (GIS, national ID, etc.)

Part IV. General Questions

1. Overview of the participant's country
   a) Location with map references
   b) Total population
   c) Name and location of the three largest cities with map references and populations

2. If your country has any difficulties with its telecommunications infrastructure for Internet services in rural areas, please indicate the current situation in accordance with the followings:

   a) Any geographical factors such as mountains, sea, scattered islands, distance from urban areas, sparse population in rural areas, etc.
   b) Any social, economical and/or technological factors.

3. If a wireless access system is practically considered as an Internet access method in rural areas in your country, please provide with the following information:

   a) Estimated initial fee per user
   b) Estimated monthly fee per user
   c) Available frequencies for wireless Internet access

   4. What kind of support/assistance do you want Japanese government or Japanese companies to?

❖ The report should be made as **Microsoft Power Point presentation format**.
❖ The report should be forwarded to the host organization prior to the participants' arrival to Japan. It is requested that the country reports are **to be submitted to JTEC by attached files to e-mail by noon Japan Standard Time (UTC +9 hours), Tuesday, November 3rd, 2015** (e-mail: **fujita@jtec.or.jp**).
❖ In case where participant have a published country report and/or annual report of participant's organization or equivalent, it is kindly advised that it (they) be brought with the participant and handed to the secretariat on the first day of the course.
❖ Presentation of country reports and discussion session is planned as part of the training course. (**Country Report Presentation is scheduled on the first day of the course, November 9, 2015**).

13. **Organization Chart:**
    ❖ The participants are requested to prepare an organization chart based on the attached sample **Appendix 2**.
    ❖ It would help us very much if participant adds organization and / or inter-relation **chart of broadcasting management organizations** of participant's country.

14. **At Japanese Custom Office:**
    ❖ Japanese customs is fairly lenient and allows bringing in items necessary for personal use, however, firearms and other types of weapons and narcotics are strictly prohibited.
    ❖ For details please refer to the following website of Japanese Customs: **http://www.customs.go.jp/english/summary/passenger.htm**.

15. **Weather:**
    ❖ The latest weather information will be obtained at: **http://www.jma.go.jp/en/yoho/index.html**
    ❖ See the weekly forecast to obtain the weather, highest and lowest temperatures expected of each day of the corresponding week. – "Get more information on this area" -> pull down menu -> select "One-week forecasts"
    ❖ Please also refer to the following additional advices.

16. **Additional Advices:**
    It is advised that participants bring **shoes suitable and comfortable for walking**, as in principle, **public transportation system (Metro, Trains and Buses) will be used during the training** and it is sometimes required to walk certain distance to and from and between training venues.

    Rain gears such as umbrellas are also essential in any season of the year.
    Please be well reminded that the month of **November is middle of autumn in Japan**.
    The weather is quite stable and generally chilliness early in the morning.
    Ref URL: **https://www.youtube.com/watch?v=m7G4kirK5WE** / Tokyo region
    https://www.youtube.com/watch?v=dchq-nvsKBc / Hokuriku region

    The participants are advised to **bring warm clothes**. (Average lowest and highest temperatures for November - during this course period - range from 8 degrees to 20 degrees Celsius.)

    For one night two days of observation traveling at Hokuriku region, please bring **another overnight bag for site visiting passage**. JTEC are arranging the store-room to secure your belongings suitcase at Shinjuku Washington Hotel during this period.

17. **Electric Current:**
    Please note that commercial electricity in Tokyo is at **AC 100V 50Hz** with American type outlet plugs (**Type A Class II**). We ask that participants **bring transformer and plug adapter (American type outlet plug)** if they wish to use their own PCs in Japan.

18. **Personal Computer (PC):**
    During Training in Tokyo, all trainees will be making some reports with a PC.
    All trainees will be beginning the presentation on 20th November. JTEC would like to

recommend all trainees bringing your own PC with software of Microsoft Power Point for making some reports.

19. **Contact Person:**
    Name: Kazunori FUJITA (Mr.)
    Title: Director, ICT Systems Engineering
              Japan Telecommunications Engineering and Consulting Service (JTEC)
    Tel: +81 3 3495 5215
    Fax: +81 3 3495 5219
    Email: **fujita@jtec.or.jp**

20. **Notes:**
    The host organization's business hours are from **9:00AM to 5:30PM**, from Monday to Friday. They do not work on Saturdays and Sundays. Messages sent to them will be received only during working hours.

    Also beware of the **time difference**, Japan is ahead of most other countries. (Japan Standard Time is **UTC +9 hours**. Japan does not observe daylight saving time). **That means their office will be closed earlier than in the cases of most of the participants' countries.**

    Please also note that **following dates from September to November 2015** are national holidays in Japan and host organization's office will be closed in addition to Saturdays and Sundays.

September	21st to 23rd
October	12th
November	3rd,23rd

    Japanese Embassies and Consulates in the applicants' countries may also close on Japanese national holidays.

21. **Regulation:**
    - not to bring any member of his/her family;
    - not to change accommodation during training period;
    - to participate in the course from the beginning to the end; and
    - to return his/her home country at the end of their training course according to the international travel schedule designated by APT.

    Participants are required to comply with instructions given by APT and the local host. (Further information on the requirement is found in the **"Guidelines for APT fellowships under HRD Programme (2013)"** and other related document)