Current Status and Activities of Japan Nuclear Human Resource Development Network

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TM Networking Educational Networks

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Japan Atomic Energy Agency
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4. Summary
1. Japan Nuclear HRD Network?
Japan Nuclear Human Resource Development Network (JN-HRD Net)

An overall framework for nuclear human resource development, consisting of nuclear-related organizations from industries, academia and the government of Japan, founded in November, 2010.

Number of member organizations: 70 (as of October 1, 2014)

Network Steering Committee Meeting in Tokyo on March 25, 2013
Aims of JN-HRD Net

The Aims of JN-HRD Net are:

- To share information on Nuclear HRD and limited resources
- To promote national / international cooperation
- To improve effectiveness and efficiency on nuclear HRD
- To establish a consistent HRD system or program
Scheme of JN-HRD Net

Government of Japan

Support

JAEA Nuclear HRD Center

Cooperate

JAIF/ JAIF International Cooperation Center

Hub/Secretariat

Japan Nuclear HRD Network

Universities, Colleges

Public Organizations, Regional Hub

Industries

R&D Organizations, Academic Societies

International Organizations, IAEA, ENEN, WNU, etc.

Nuclear Power Introducing Countries

E&T

Students, Young researchers, Foreigners, etc.
Member Organizations

- Universities and colleges 25
- Industries 18
- Public organizations and regional hub 18
- Governmental ministries (*) 5
- R&D organizations and academic societies 4

**Total 70**

(*) MEXT, METI, MOFA, MOE and Cabinet Office

Membership fee: Free

Obligation 1) Providing information regarding nuclear HRD to this network
Obligation 2) Appointing contact persons
Steering Committee

Sub-Working Group (1): Discussion on elementary - high school education
Sub-Working Group (2): Discussion on basic nuclear education at universities and colleges
Sub-Working Group (3): Discussion on support of newly NPP introducing countries
Sub-Working Group (4): Discussion on HRD for internationally minded engineers
Sub-Working Group (5): Discussion on HRD of engineers in practical stage

Network Secretariat (JAEA and JAIF/JICC)

NW Steering Committee:
- Formulating basic policy and outline

NW planning WG:
- Planning, discussing and reviewing overall network projects and activities

Sub-Working Group:
- Discussing individual inter-organ projects and activities

Network Secretariat:
- Managing and implementing projects and activities
## Roles of Sub-Working Groups

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<thead>
<tr>
<th>Sub-Working Group (1): Discussion on elementary - high school education</th>
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<tbody>
<tr>
<td>To reinforce action toward elementary, junior-high and high school educations to encourage students to proceed to a higher grade school to study science and engineering including nuclear field</td>
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<tr>
<th>Sub-Working Group (2): Discussion on basic nuclear education at universities and colleges</th>
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<tr>
<td>To reinforce the basic education on nuclear technologies and related subjects at universities and colleges, and to rebuild the professional education system on nuclear energy</td>
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<tr>
<th>Sub-Working Group (3): Discussion on support of new-comer countries</th>
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<td>To support nuclear HRD in countries that plan to introduce nuclear energy (NPP) in the near future</td>
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<th>Sub-Working Group (4): Discussion on HRD for globalization</th>
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<td>To train young generations to be internationally minded talented persons</td>
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<tr>
<th>Sub-Working Group (5): Discussion on HRD of engineers in practical stage</th>
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<tr>
<td>To support transfer of nuclear-related knowledge, skills and experience (know-how) to next generations</td>
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*Activities of Network Secretariat
- Meetings, Conferences
- Information survey on Nuclear HRD
- Public Relations including operating Web, etc.

Main sponsor: JAEA, JAIF and JICC

*Actual HRD activities conducted by the network member organizations
- Training (HRD) activities, Schools
- Education programs, etc.

Main Sponsor: Each organization afford their activities. Some of them are conducted under competitive funds of the Government (MEXT and METI).
Other networks under JN-HRD Net

*University Network
   (15 universities led by TIT)

*Japan Nuclear Education Network (JNEN)
   (6 universities & JAEA)

*Nuclear Safety Security Exercise Network
   (10 universities led by UT)

*Fukui International Nuclear HRD network
   (WERC, JAEA, 2 electric power companies, 2 universities and others)

*National Technical College network
   (Nagaoka Tech. Univ. & 33 Tech. colleges)
2. Current Status of Nuclear HRD in Japan and the JN HRD Network
1) Sense of Crisis in Japan

Impacts of Fukushima NPP accident in nuclear field, especially to young generations in Japan;

- Remarkable declining of students’ interests in nuclear fields
- Non-nuclear students (Electrical, Mechanical, Chemical and others) obviously avoid nuclear industries
- Decreasing of applicant students to nuclear departments in some universities
Trend of Students Mind (1)  
- Number of the Students participating in the Nuclear Industry Seminar -

Number of Participating Students

Japan Fiscal Year

2006 2007 2008 2009 2010 2011 2012 2013

Number of Organizations

Osaka
Tokyo
Organizations
Trend of Students Mind (2)

- Specialty of Students participating in the Nuclear Industry Seminar -

- Graph showing the number of students in different specialties from 2007 to 2013.

Specialties:
- Electric
- Mechanical
- Others
- Math. or Physics
- Chemical
- Civil
- Arts
- Nuclear
- IT
2) Subjects to be encountered

● **HRs for steady decommissioning** of damaged plants and radioactive waste management at Fukushima NPP

● **Sharing information on lessons learned from Fukushima NPP accident** and securing safety in all NPPs

● Necessity of human resources for safety operation of NPP as a base load energy resource

● **Getting short of well-experienced engineers**

● Accurate technical transfer to next generations

● **Lack of dreaming future projects in nuclear field**

● **Weakening of university education** for basic nuclear subjects

● **Shortage of global human resources**

● **Intensification of international competition**
3) Japan AEC’s Statement

Atomic Energy Commission of Japan (AEC) published a statement in November, 2012, titled “Promotion of Measures to secure and develop Human Resources for Nuclear Energy”.

http://www.aec.go.jp/jicst/NC/about/kettei/121127-2_e.pdf

The statement contains 11 directions and the AEC expects that various sectors will conduct their responsible activities hereafter.

JN-HRD Net discussed how nuclear HRD can be promoted along the statement and recently compiled a guide (consists of 10 themes) for activities of JN HRD Net.

Member organizations of the JN HRD Net are expected to perform their HRD activities mentioned in the guide.
4) Strategic Roadmap of Japan Nuclear Human Resource Development Network

How to Issue HRD Road Map

- An advisory committee of JN-HRD Net has addressed measures since December 2013. It proposed to the Steering Committee the creation of a nuclear HRD roadmap to tackle HRD strategically.

<Steps to issue a roadmap>

1. Forming of a desired picture of the nuclear industry ten years later
2. Identify required human resources and issues in realizing the desired picture
3. Create a path toward resolution of issues (Roadmap)
4. Confirm consistency with the Strategic Energy Plan, Nuclear Energy Subcommittee, etc.

- Create a roadmap, by clarifying targets, distribution of roles, schedules, etc.
- Tackle nuclear HRD strategically according the roadmap, with the aim of establishing a HRD system that can become a standard.
Items Included in the Desired Ten-Year Picture

The following four subjects were chosen as especially important when considering a desired picture of the nuclear industry hereafter

① Reconstruction and revitalization of Fukushima
② Safe operation and ensuring safety
③ Nuclear fuel cycle and disposal of radioactive waste
④ International contribution and development overseas
Steps in Creating the Roadmap

• Measures identified by the analyses and should be included in the roadmap:

  1. Keywords in HRD were identified for four categories subject to development: students (education), younger engineers (first 10 years), mid-career engineers (to mid-40’s) and engineers of emerging countries.

  2. Roles pf the competent organizations (state, universities, industry and industry-government-academia cooperation) were considered.

• Measures for HRD over the coming ten years for each target development category have been formulated.
# Human Resource Development Roadmap

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<td>Conveying appeal</td>
<td>Issuing Strategic Energy Plan</td>
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<td>Demonstrating appeal and challenging attitude</td>
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<td>Investigating human resource supply-and-demand trends</td>
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<td>General education</td>
<td>Development of scientific literacy</td>
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<td>Science education at the elementary and junior-high levels</td>
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<td>Liberal arts education (impartial, fair understanding)</td>
<td>Energy and environmental education</td>
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<td>Energy and environmental education</td>
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<td>Liberal arts education</td>
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<td>Introduction to nuclear/radiation topics, including societal and political aspects other than technical</td>
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<td>Engineering ethics</td>
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<td>Engineering ethics (safety culture)</td>
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<td>Nuclear education</td>
<td>Ensuring human teaching resources</td>
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<td>Ensuring positions/improving conditions</td>
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<td>Cutting-the-edge research</td>
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<td>International standardization of curriculums (content deemed satisfying in basic &amp; fundamental education)</td>
<td>Producing model curriculums</td>
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<td>Replacing corresponding subjects in previous curriculums</td>
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<td>Implementing standard curriculums</td>
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<td>Effective, efficient education through inter-university/ international cooperation</td>
<td>Inter-university cooperation in basic &amp; fundamental education, and experimental/practical education</td>
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<td>Credit transferability</td>
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<td>Maintaining education and research facilities, joint use of those facilities internationally</td>
<td>Maintaining, updating and new construction of experimental/practical facilities for education and research</td>
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<td>Promoting international joint use of experimental/practical facilities for education and research</td>
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<td>Contribution from the industry</td>
<td>Internships, etc.</td>
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<td>Providing opportunities to see and experience nuclear-related work, etc., including facility tours and internships</td>
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Important items are framed in red. Some of them are being considered with priority by network sub-groups, etc. G = government; I = industry; A = Academia.
Challenges of JN-HRD Net

① Joint efforts of member organizations to support recovering activities at Fukushima NPP and the surrounding area
  - (Field engineers and technicians for Fukushima recovery)

② Ensuring new young human resources
  - (Students who aim at nuclear careers)

③ Securing a high level of fundamental education on nuclear energy
  - (Enhancement of nuclear education at universities and colleges)

④ Cooperation on nuclear HRD with other countries and international organizations such as IAEA
  - (International activities)

⑤ Disseminating accurate information on radiation so as to help restore public confidence in nuclear energy
  - (PI activities)

⑥ Discussion and making a ten-years HRD roadmap (action plan) for future nuclear society in Japan
3. Examples of Recent Activities of Japan Nuclear HRD Network

3.1 Activities based on the recommendations after Fukushima NPP Accident
The message of recommendations in the light of Fukushima Accident announced by JN-HRD Net

In August, 2011, the JN-HRD Net published a message focused on 5 different objectives and summarized the direction of HRD after the Fukushima accident:

1. Securing human resources with specialized knowledge in nuclear safety, emergency preparedness, risk management and radiation
2. Securing field engineers (including technicians)
3. Enrolling students and young researchers in nuclear field
4. Enhancement of communication on radiation (and its risk)
5. Development of global human resources

Each network member organization is expected to implement these tasks swiftly and actively.
Activities for recommendation message 1:
Securing human resources with specialized knowledge in nuclear safety, emergency preparedness, risk management and radiation

Various seminars on Nuclear safety, emergency preparedness, risk management and radiation knowledge were conducted by some network member organizations.

Ex:

- Nuclear safety seminar – – – Universities or R&D organizations
- Comprehensive basic education on Nuclear safety and radiation biology/medicine – – – University
- Exercises on Core Safety and Seismic tolerability of LW reactor – – – Nuclear Plant manufacturer
- Practical education on disaster prevention and safety for future nuclear engineers – – – Technical Colleges

Kyoto Univ. Reactor
Hot laboratory
Radiation measurement exercise
Poster presentation

Exercise at NCA, Toshiba Co.Ltd.
Activities for recommendation message 2:
Securing field engineers (including technicians)

- Trainings and education on nuclear emergency, risk management for engineers and technicians
  - Training on Radiation Control for emergency staff
  - Training to strengthening of capacity for severe accidents of NPP for emergency staff

- Transfer of core techniques between older and younger generations at NPP or plant manufacturer
  - Information Exchange or sharing on core techniques at NPP through OJT, etc.
  - Information Sharing through technological transfer and a data-base on technological know-how including trouble experiences

- Trainings on safety management learned from the accidents of Fukushima dai-ichi NPP
  - Simulation Training for all-electricity-loss disaster
  - Mid-night emergency training
  - Training of radiation protection managers and radiation control engineers
After Fukushima NPP Accident, it is obvious that students do not have much interests in the nuclear field. Member organizations of the JN HRD net are conducting many activities for enrolling students into nuclear field (industries and R&D organizations).

- **Seminars for students on nuclear technology including the knowledge of radiation and its properties**
- **Site visit of nuclear facilities for students**
  - The facility visits for university or college students, especially non-nuclear students (electrical, mechanical, chemical engineering and others) are conducted.

Ex. of visiting facilities:
- Research reactors, Large Accelerators,
- Nuclear Fusion facilities,
- Factories of nuclear plant manufacturers

- **Trend research on course selection of students cooperated with academic society etc.**
Activities for recommendation message 4: Enhancement of communication on radiation

After Fukushima NPP Accident, we realized that those in nuclear society should have many opportunities of communication with public and should disseminate the accurate knowledge on radiation. The lack of sufficient knowledge on radiation of ordinary people might have become one of causes of “Public Rumor Damages”.

The network should put emphasis on:
1) Support of dissemination of knowledge on radiation and radioactivity to ordinary people and younger generations.
2) Fostering and Training of risk (radiation) communicators

- Cooperating program among junior-high school, technical college and graduate school on the education for understanding of the risk of nuclear power — University education
- Training program for risk communicators — Public Organizations
Activities for recommendation message 5: Development of global human resources

**Purpose:** To increase global nuclear human resources in Japan on a medium- and long-term basis.

**Japanese young engineers and students,**

- **should** know the global nuclear situation especially after the Fukushima NPP accident and also make themselves capable to communicate with nuclear-related persons all over the world.

- **should** contribute to the nuclear safety, especially on establishment of world (international) standards on nuclear technology in the future.

- **should** contribute to worldwide development of nuclear technology, especially in newcomer countries.

**(Examples of Activities)**

- **International communication training course**
- **International Nuclear Seminars for young generations**
3.2
Cooperation with the Universities
-Japan Nuclear Education Network (JNEN)
Cooperation with the Universities (1) - Activities of JNEN

Background
• The most skillful workers and teachers are retiring from the nuclear sector and the nuclear field
• Difficulty for the Universities to cover whole nuclear field by their own

So, each Universities decided to help each other and with the cooperation of JAEA

Establishment of the ‘Japan Nuclear Education Network (JNEN) ’
Cooperation with the Universities (1)
-Activities of JNEN

- JAEA and 6 Universities cooperate each other through JNEN to foster future leaders of the nuclear sector.
Remote lecture system (Common Course)

- Different universities can share the same lecture and communicate each other through the system
Cooperation with the Universities (1)
-Activities of JNEN

• Steering committee decides on;
  (1) Activity plan
  (2) Curriculum
  (3) Use of each organization’s facility
      (JAEA, universities)
  (4) Budget etc.

• Organizational structure of the committee
  ■ Chairperson: President of JAEA
  ■ Vice-chairman: Representative of TITECH
  ■ Member: 6 universities’ representatives and JAEA’s directors
  ■ Executive office: JAEA
Cooperation with the Universities (1) -Activities of JNEN

**Example of JNEN’s Activity Plan**

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<td>Radiation and Nuclear and Nuclear Fuel Cycle</td>
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Cooperation with the Universities (1)
- Activities of JNEN

• Common Course (1\textsuperscript{st} term)
  
  Title: Radiation and Nuclear  \hspace{1cm} \textit{(students can obtain 2 credits)}
  
  Period: April to July,  
  every Friday 13:10-14:40
  
  Total participants: 150
  
  (Kanazawa Univ. 10, TITECH 10,  
  Fukui Univ. 30, Ibaraki Univ. 70,  
  Okayama Univ. 10, Osaka Univ. 20)

• Common Course (2\textsuperscript{nd} term)
  
  Title: Nuclear Fuel Cycle \textit{(students can obtain 2 credits)}
  
  Period: October to February,  
  every Friday 13:10-14:40
  
  Total participants: 50
  
  (Kanazawa Univ. 10, TITECH 10,  
  Ibaraki Univ. 10, Okayama Univ. 10,  
  Osaka Univ. 10)
Cooperation with the Universities (1)  
-Activities of JNEN

- Summer Course
- Every student from different universities in the same place, face to face.
  → More positive attitude to the course comparing to common course.
3.3
International Nuclear HRDs for new comer countries
Japan Nuclear HRD Network for supporting newcomer countries

**Ministry of Education, Culture, Sports, Science and Technology (MEXT)**

- **Japan Atomic Energy Agency (JAEA)**
- JN HRD-Net Secretariat
  - Nuclear HRD Center (NuHRDeC)
    - Instructor Training Program
    - Instructor Training Course (Eligible country: 9 countries)
    - Dispatch of Experts (Follow-up training)
    - Nuclear Safety Seminar (8-10 countries)
  * Administration course
  * Site location of nuclear facilities course
  * Reactor Plant Safety course
  * Basic Radiation Education course

**Ministry of Economy, Trade and Industry (METI)**

- **Agency for Natural Resources and Energy (NPP-promoting-body)**
  - JAEA
- **Japan Atomic Industrial Forum (JAIF)**
  - JAIF International Cooperation Center (JICC)
    - Acceptance of Trainees
    - Dispatch of experts

**Ministry of Foreign Affairs (MOFA)**

- **Nuclear Safety HRD Center**
  - Training for safety-related issues

**Cabinet Office (CAO)**

- **Japan Atomic Energy Commission Forum for Nuclear Cooperation in Asia (FNCA) program**
  - Acceptance of Trainees

**University Network**

- **Lectures for NPP-introducing countries**
  (TV Lectures: ANEN Plan)
- **Tokyo Inst. of Technology (Secretariat)**
  (Member Universities)

**Nuclear Safety Research Association (NSRA)**

- **Nuclear Researchers Exchange Program**
  (Eligible country: Asian Countries)
- **FNCA**
- **ANTEP**

**The University of Tokyo**

- **Global Professional Course**
  - E-learning contents by collaboration with IAEA and foreign universities

**Fukui International Center of Nuclear HRD**

The Wakasa wan Energy Research Center (WERC)

**Nuclear Regulation Authority (NRA)**

- **(NPP-Regulating-body)**
  - Training in Electric Power company

**Industry**

- **The Japan Atomic Power Company (JAPCO)**
  - Training in Electric Power company

**International Nuclear Energy Development of Japan (JINED)**

- **Electric Power Companies**
  - (Hokkaido, Tohoku, Tokyo, Chubu, Hokuriku, Kansai, Chugoku, Shikoku, Kyushu)
  - TOSHIBA, HITACHI-GE, Mitsubishi Heavy Industries
  - Acceptance of Trainees
Purpose: ITP (started in 1996) is a train-trainers program for young engineers and researchers of Asian countries to improve their teaching skills so that they can be main instructors for domestic training courses in their own countries.

ITP is conducted by JAEA under annual sponsorship by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) of JAPAN.

ITP consists of ITC, FTC and Technical Seminars.

Asian countries
Bangladesh  Indonesia  Kazakhstan  Malaysia  Mongolia  Philippines  Thailand  Vietnam

① Go to Japan as trainees
② Training for 6~8 weeks
- Reactor Engineering I II III
- Environmental monitoring
- Emergency preparedness
③ Go home as instructors
④ Set up of Domestic training courses
Follow-up training courses (FTC)
⑤ Dispatch experts to support FTC (1-2 weeks)

Japanese experts

Rome was not built in a day.

Japan (ITP) supports the self-standing of their domestic training system.
Example 1: Reactor Engineering Course

Period: 8 weeks
Lectures: JAEA experts are selected as lecturers
Experiments: JRR-1 simulator, Boiling heat transfer apparatus, Neutron experiments facility, PC room, NDT facility etc.
Exercises: Computer calculation code (nuclear design code, nuclear-thermohydraulics coupling code, thermohydraulics code)
Facility Visits: Research reactors, Accelerators, NPP, Nuclear fuel company, Nuclear factory, Medical radiation research center, etc.
Country report: By Participants
Presentation: By Participants
Example 2: Environmental Radioactivity Monitoring Course

**Period:** 6 weeks

**Lectures:** JAEA experts are selected as lecturers

**Experiments:** Gamma Spectrometry, Low Background Measurement, Sampling Techniques, Dose rate measurement, Calibration of radiation measurement instruments, etc.

**Exercises:** Internal Dose evaluation exercises, SPEEDI exercise, Sampling and Monitoring Exercise in Fukushima Pref., etc

**Facility Visits:** Environmental Monitoring Center, Chemical analysis facility, Manufacturer of radiation measuring instruments, Medical radiation research center, etc.

**Country report:** By Participants

**Presentation:** By Participants
Domestic Training Course Set-up by ITC participants

Follow-up Training course (FTC)

1. **FTC** is the training course for local engineers, etc. ITC-participated trainees set up domestic training course and are in charge of training as main instructors in their countries.

2. Japanese experts are dispatched to each country to support conducting domestic training course. To give technical advice to local instructors for further development of their self-sustainability.

- Reactor engineering course in Vietnam
- Environmental monitoring Course in Indonesia
- Emergency Preparedness Course in Thailand
Nuclear Safety Seminars (as a part of ITP)

- **Nuclear Plant Safety Course** (4 weeks)
  - Training for nuclear power plant (LWR) safety
  - Totally about 40 participants since 2007

- **Administration Course** (3 weeks)
  - Training for administrative officers such as energy planning, regulators

- **Site location Course** (1 week)
  - Training for site planning-related personnel

- **Basic Radiation Knowledge for School Education Course** (2 weeks)
  - Training for instructors for school teachers that teach basic knowledge on radiation at schools

Facility visit (JAPCO training center)

Round table discussion with distinguished lecturer in JAEA-NuHRDeC
Large number of nuclear engineers can be trained efficiently and effectively by the ITP program.
Purpose:
The program enables **Asian researchers** to obtain the state-of-the-art technical knowledge and to perform high grade research activities in Japan, for contributing to build up and to strengthen nuclear base and nuclear safety in each Asian country.

- **Invitation program**
  To invite Asian researchers to Japan for 3-6 months

**Research Courses:**
NREP sets up following research courses to match the ANTEP Needs.
- Individual Research Subject Course
- Basic Research Field Course

**Research Organizations in Japan:**
7 Research Institutes and 15 Universities
- Japan Atomic Energy Agency (JAEA),
- National Institute of Radiological Science (NIRS),
- National Institute of Advanced Industrial Science and Technology (AIST)
- Tokyo Univ., Tokyo Institute of Technology, Kyoto Univ., etc
Research Subject

◆ Individual Research Subject Course

This course aims to develop researcher’s capacity, providing expertise.

Research subject:
1) Radioactive Waste Management
2) Radiation and Radioisotope Application
3) Reactor
4) Fuel/Material
5) Nuclear / Radiation Safety
6) Policy/ Planning /Administration
7) Others

◆ Basic Research Field Course

This course can enable researchers and administrative technical officers to gain a general and systematical understanding on basic nuclear field/nuclear safety field.

Research field (FY2014):
1) Nuclear Engineering/ Nuclear Safety Engineering
2) Fuels and Materials Engineering
3) Radioactive Waste Management
4) Environmental Radiation Monitoring / Analysis
5) Neutron Beam Applications
Total number of invited Asian researchers

From FY1985 to FY2013: 1613

Research Field of the Invited Researchers (FY1997-FY2008)

Results:
The invited researchers have contributed to build up and to strengthen nuclear base and nuclear safety in Asian countries. Many of them became high-level leading persons for nuclear energy development and nuclear safety in their own countries.
Role of administrative contact office for IAEA fellows to Japan

- Since early 2012, the JN-HRD net has helped students or researchers visit to Japanese organizations.
- In 2013, **19 cases(fellows)** were accepted by universities or research institutes in Japan.

Apply

Foreign countries
Candidates hoping to have training in Japan

Request

IAEA Technical Cooperation Program

Reply

Ministry of Foreign Affairs, JAPAN

JN-HRD.net

Accepting organizations in Japan
Ex. JAEA, Nagasaki Univ., Tokyo Institute of Technology, etc.

Go to JAPAN
3.4 Public Information
Public Information through Web Site

- Most activities of JN HRD Net are informed on the Network Web site.
  
  http://jn-hrd-n.jaea.go.jp/

- An information Data Base is also furnished on the Web site. The date base contains:
  
  1) E&T activities of member organizations
  2) Facilities for training available in Japan
  3) Lecturers and instructors for Nuclear HRD

- Web site (English Version) will be reformed and reinforced soon.
Introduction to JN-HRD Net
- Steering Committee
- Planning Working Group
- Sub-WG for
  * Elementary - High school Education
  * Basic Nuclear Education
  * Engineers on Practical Stage
  * Globalization
  * Support for new-comer countries
- General Conference

Web site of JN-HRD Net

URL of the JN-HRD Net Web site
http://jn-hrd-n.jaea.go.jp/
### Example of information on the Web site:
Annual plan of HRD activities conducted by network members

#### Time Table of HRD Activities in FY 2014

<table>
<thead>
<tr>
<th>Activities on Supporting New-Comer Countries</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
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<td>Researcher Exchange Program</td>
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<td>Practical Education ( Col. with Tokai Univ. &amp;JICC/JINED)</td>
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<td>NIRS Training Program on Radiation Emergency Medicine for Medical Professionals 2014</td>
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<td>NIRS workshop on medical response to radiation accidents in Asia 2014</td>
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After Fukushima NPP accident, it was realized that the nuclear HRD is quite important for securing safety of nuclear facilities.

Japan Nuclear HRD Network aims at all-Japan cooperation framework on Nuclear HRD and promotes some inter-organization activities.

Japan Nuclear HRD Network and the member organizations are conducting or will conduct many nuclear HRD activities with national and international organizations.
Thank you for your attention.

Contact:
For nuclear HRD in general:
Japan Nuclear HRD Network Office
E-mail: jn-hrd.net@jaea.go.jp

For NPP related HRD from outside Japan:
JAIF International Cooperation Center (JICC)
E-mail: info@jaif-icc.com
TEL: +81-3-3592-2185
URL: http://jn-hrd-n.jaea.go.jp/