

Ministry of Education, Culture, Sports, Science and Technology
Program for Leading Graduate Schools

Preliminary Program

The 4th International Symposium and Seminar on
Global Nuclear Human Resource Development
for Safety, Security and Safeguards

- Nuclear Safety in the Post-Fukushima Era -



Fukushima Daiichi Nuclear Power Plants on March 20, 2011

February 17 – 26, 2015

Tokyo International Exchange Center and Grand Pacific Le Daiba
Tokyo, Japan

Organized by
Academy for Global Nuclear Safety and Security Agent,
Tokyo Institute of Technology



In Cooperation with
International Atomic Energy Agency (IAEA) (TBD)
Embassy of France in Japan
Japan Atomic Energy Agency (JAEA)



Institute of Nuclear Materials Management (INMM) Japan Chapter
International Nuclear Research Collaboration Center, Tokyo Tech.



Symposium

Opening Feb (17)

Chair : Masayuki IGASHIRA (*Tokyo Tech, Japan*)

Welcome Address :

Yoshinao MISHIMA (*Tokyo Tech, Japan*)

Opening Address :

Masaki SAITO (*Tokyo Tech, Japan*)

TBD (*Ministry of Education, Culture, Science and Technology, Japan*)

TBD (*Embassy of France in Japan*)

Plenary Session 1 (Feb 17)

Chair : Tomihiro TANIGUCHI (*Tokyo Tech, Japan*)

Keynote Speakers :

Janice LEE (*IAEA*)

Erik HOLLNAGEL (*University of Southern Denmark, Denmark*)

Charles CASTO (*Casto Group Consulting, USA*)

Plenary Session 2 (Feb 17)

Chair : Masaki SAITO (*Tokyo Tech, Japan*)

Speakers :

Akira KAWANO (*TEPCO, Japan*)

Naohiro MASUDA (*TEPCO, Japan*)

Yoshihisa MATSUMOTO (*Tokyo Tech, Japan*)

Kenji TAKESHITA (*Tokyo Tech, Japan*)

Plenary Session 3 (Feb 18)

Chair : Akira OMOTO (*Tokyo Tech, Japan*)

Speakers :

Takefumi ANEGAWA (*TEPCO, Japan*)

Toru MATSUZAWA (*TEPCO, Japan*)

Plenary Session 4 (Feb 18)

Chair : Philippe JAMET (*ASN, France*)

Speakers :

Kazuo FURUTA (*Tokyo U, Japan*)

Hiroshi YAMAGATA (*Nuclear Regulation Authority, Japan*)

Toyoshi FUKETA (*Nuclear Regulation Authority, Japan*)

Philippe JAMET (*ASN, France*)

Mariko NISHIZAWA (*Litera Japan, Japan*)

Monica HAAGE (*IAEA*)

Plenary Session 5 (Feb 19)

Chair : Masayuki IGASHIRA (*Tokyo Tech, Japan*)

Speakers :

Man-Sung YIM (*KAIST, Korea*)

Vladimir ARTISIUK (*Rosatom, Russia*)

Rahmat Mohsin (*UTM, Malaysia*)

William CHARLTON (*Texas A&M, USA*)

Masaki SAITO (*Tokyo Tech, Japan*)

Seminar (closed)

Lecture Session 1 (Feb 23)

Moderator : Akira OMOTO (*Tokyo Tech, Japan*)

Speakers :

Akira OMOTO (*Tokyo Tech, USA*)

Monica HAAGE (*IAEA*)

Lecture Session 2 (Feb 23)

Moderator : Masaki SAITO (*Tokyo Tech, Japan*)

Speakers :

SAGAYAMA (*IAEA, Japan*)

Hadid Subki (*IAEA*)

Lecture Session 3 (Feb 24)

Moderator : Masaki SAITO (*Tokyo Tech, Japan*)

Speakers :

Hirobumi KAYAMA (*METI, Japan*)

Nguyen Tuan Khai (*VINATOM, Vietnam*)

Lecture Session 4 (Feb 24)

Moderator : Hideo NAGASAKA (*Tokyo Tech, Japan*)

Speakers :

Kumiaki MORIYA (*Hitachi, Japan*)

Kazuhiro KAMEI (*Toshiba, Japan*)

Shigemitsu OTSUKA (*Mitsubishi, Japan*)

Jor-Shan CHOI (*UC Berkeley, USA*)

Student Session 1 (Feb 24)

Chairs : *Students and Young Professionals*

Speakers :

Akira OMOTO (*Tokyo Tech, Japan*)

Student Session 2 (Feb 25)

Chairs : *Students and Young Professionals*

Student Session 3 (Feb 26)

Chairs : *Students and Young Professionals*

Speakers : *Students and Young Professionals*

Closing (Feb 26)

Chair : Masaki SAITO (*Tokyo Tech, Japan*)

Speakers :

Noramlly Muslim (*UTN, Malaysia*)

Tomihiro TANIGUCHI (*Tokyo Tech, Japan*)

PROGRAM



The 3rd International Seminar on Global Nuclear Human Resource Development for Safety, Security and Safeguards, February 25 – March 7, 2014, Tokyo, Japan

February 16 (Mon)

Orientation (Only for Invited Students and Young Professionals)

(Conference Room 1, 4F, Plaza Heisei, Tokyo International Exchange Center)

13:30-13:40 **Welcome Address**

Masaki SAITO (Director of Academy for Global Nuclear Safety and Security Agent, Tokyo Institute of Technology, Japan)

13:40-14:10 **Orientation**

14:10-14:40 **Student Registration**

14:40-15:00 **Preparations**

15:00-16:30 **Self Introductions**

16:30-17:00 **Closing**

Speakers' Meeting (Only for Overseas Speakers)

(Le Bouquet, 2F, Grand Pacific Le Daiba)

18:00-20:00 **Program Meeting**

February 17 (Tue)

(International Conference Hall, 3F, Plaza Heisei, Tokyo International Exchange Center)

Open Registration

08:30-

Opening

Chaired by Masayuki IGASHIRA (Professor and Vice-Director, Academy for Global Nuclear Safety and Security Agent, Tokyo Institute of Technology, Japan)

Welcome Address

09:00-09:10 **Yoshinao MISHIMA** (President, Tokyo Institute of Technology, Japan)

Opening Address

09:10-09:20 **Masaki SAITO** (Director, Academy for Global Nuclear Safety and Security Agent, Tokyo Institute of Technology, Japan)

09:20-09:30 **TBD** (Ministry of Education, Culture, Science and Technology, Japan)

09:30-09:40 **TBD** (Embassy of France in Japan)

Plenary Session 1

Chaired by Tomihiro TANIGUCHI (Professor, Tokyo Institute of Technology, Japan)

09:40-10:20 **Keynote Speech**

“Global Leader”

Janice LEE (Deputy Director General, Department of Management, IAEA)

10:20-11:00 **Special Lecture 1**

“The Past and Future of Safety Management”

Erik HOLLNAGEL (Professor, Institute for Regional Health Research, University of Southern Denmark, Denmark)

11:00-11:20 **Tea Break**

11:20-12:00 **Special Lecture 2**

“Global Leadership in the Extreme: Crisis Leadership Post-Fukushima”

Charles CASTO (President, Casto Group Consulting LLC, USA)

12:00-14:00 **Group Photo and Lunch**

February 17 (Tue)

(International Conference Hall, 3F, Plaza Heisei, Tokyo International Exchange Center)

Plenary Session 2:

The Fukushima NPP Accident

Chaired by Masaki SAITO (Director of Academy for Global Nuclear Safety and Security Agent, Tokyo Institute of Technology, Japan)

14:00-14:40 **Invited Speech 1**

“Overview of Tepco’s Fukushima Accident and Lessons of the Accident”

Akira KAWANO (Deputy Head, Tokyo Electric Power Company, Japan)

14:40-15:20 **Invited Speech 2**

“Current Status and the Future of Fukushima-Daiichi Site”

Naohiro MASUDA (Tokyo Electric Power Company, Japan)

15:20-15:40 **Tea Break**

15:50-16:20 **Invited Speech 3**

“Fukushima Daiichi Nuclear Power Plant Accident from the Aspect of Radiation Biology”

Yoshihisa MATSUMOTO (Professor, Tokyo Institute of Technology, Japan)

16:20-17:00 **Invited Speech 4**

“Effect on the Environment and Decontamination”

Kenji TAKESHITA (Professor, Tokyo Institute of Technology, Japan)

Evening Session

(Room “Hikari”, 29F, Grand Pacific Le Daiba)

15 min. walk from Tokyo International Exchange Center

18:00-20:00 **Discussions of the Key Issues of Mutual Concern**

February 18 (Wed)

(International Conference Hall, 3F, Plaza Heisei, Tokyo International Exchange Center)

Plenary Session 3:

Why Failed, What Went Right, and Why? - For the Future -

Chaired by Akira OMOTO (Professor, Tokyo Institute of Technology, Japan)

09:00-9:40 **Invited Speech 5**

“TEPCO’s View”

Takafumi ANEGAWA (Tokyo Electric Power Company, Japan)

09:40-10:20 **Invited Speech 6**

“Seismologists’ View”

Toru MATSUZAWA (Professor, Tohoku University, Japan)

10:20-10:40

Tea Break

Plenary Session 4:

The Future of Risk Management

Chaired by Philippe JAMET (Commissioner, Nuclear Safety Authority, France)

10:40-11:20 **Invited Speech 7**

“Enhancing Resilience”

Kazuo FURUTA (Professor, University of Tokyo, Japan)

11:20-12:00 **Invited Speech 8**

“Changes in Regulation”

Hiroshi YAMAGATA (Nuclear Regulation Authority of Japan, Japan)

12:00-13:30

Lunch

February 18 (Wed)

(International Conference Hall, 3F, Plaza Heisei, Tokyo International Exchange Center)

- 13:30-14:10 **Invited Speech 9**
“Regulator’s Perspective”
Toyoshi FUKETA (Commissioner, Nuclear Regulation Authority of Japan, Japan)
- 14:10-14:50 **Invited Speech 10**
“Key LL in the International Community and the Future of Risk Management”
Philippe JAMET (Commissioner, Nuclear Safety Authority, France)
- 14:50-15:10 **Tea Break**
- 15:10-15:50 **Invited Speech 11**
“How Good Risk Communication can Lead to Enhanced Nuclear Safety”
Mariko NISHIZAWA (Representative Director, Litera Japan Corporation, Japan)
- 15:50-16:30 **Invited Speech 12**
“Operators’ Risk Management in Post-Fukushima Era in Japan”
Satoshi KURATA (Operations Officer, Japan Nuclear Safety Institute, Japan)
- 16:30-17:10 **Invited Speech 13**
“Managing Human, Organization and Technology”
Monica HAAGE (IAEA)

February 19 (Thu)

(Room “Niji”, 29F, Grand Pacific Le Daiba)

Plenary Session 5:

Education, Leadership in Safety and Resilience Management

Chaired by Masayuki IGASHIRA (Professor and Vice-Director, Academy for Global Nuclear Safety and Security Agent, Tokyo Institute of Technology, Japan)

09:00-9:30 **Invited Speech 14**

“Nuclear Engineer for the Future”

Man-Sung YIM (Professor, Korea Advanced Institute of Science and Technology (KAIST), Korea)

09:30-10:00 **Invited Speech 15**

“Knowledge Transfer to Embarking States. The Issue of Safety Culture”

Vladimir ARTISIUK (Vice-Rector, Rosatom Central Institute for Continuing Education and Training, Russia)

10:00-10:30 **Invited Speech 16**

“TBD”

Rahmat Mohsin (Professor, Universiti Teknologi Malaysia, Malaysia)

10:30-10:50 **Tea Break**

10:50-11:20 **Invited Speech 17**

“TBD”

William CHARLTON (Professor, Texas A&M University, USA)

11:20-11:50 **Invited Speech 18**

“TBD”

Masaki SAITO (Director, Academy for Global Nuclear Safety and Security Agent, Tokyo Institute of Technology, Japan)

Closing Remarks of Plenary Sessions

11:50-12:00 **Masaki SAITO** (Director, Academy for Global Nuclear Safety and Security Agent, Tokyo Institute of Technology, Japan)

12:00-13:00 **Lunch**

Field Education 1

(Only for Invited Students and Young Professionals)

13:00-14:00 **Environmental Radiation Measurement**

14:00- **Move to Fukushima**

February 20 (Fri)

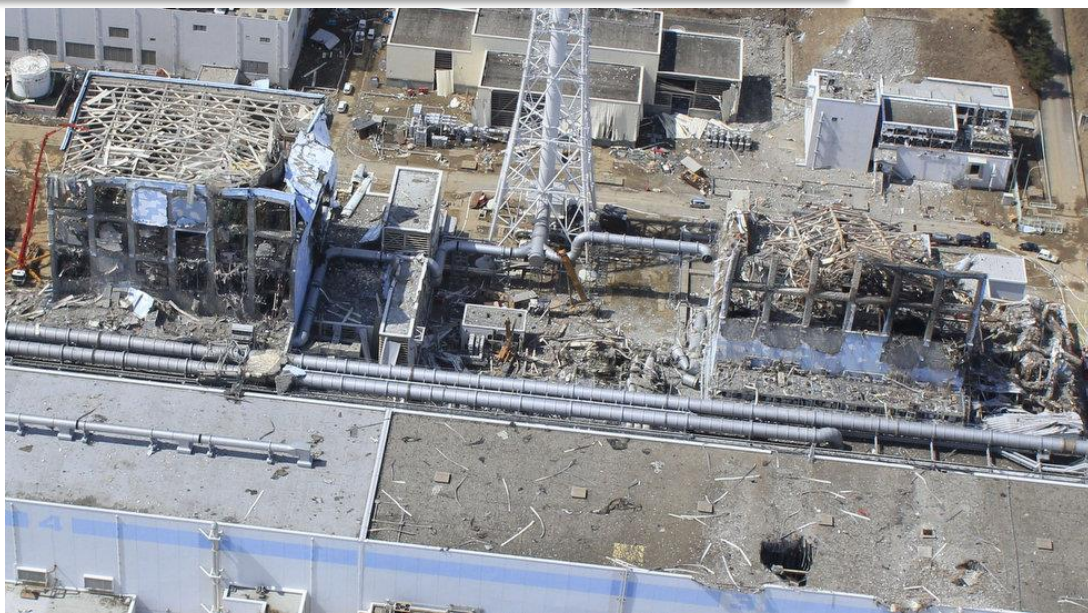
Field Education 2:

Experience of Fukushima NPSs Daiichi and Daini

08:30- *Move to Fukushima NPS*

09:30-17:00 **Field Experience**

17:00- *Return to Hotel*



February 21 (Sat)

Field Education 3: Radiation Measurement in Fukushima

09:30- *Move to Measurement Site*

10:00-11:30 **Environmental Radiation Measurement**

12:00-13:00 **Lunch**

13:00- *Return to Tokyo*



February 23 (Mon)

(Room “Niji”, 29F, Grand Pacific Le Daiba)

Lecture Session 1:

Creating Culture for Safety

Moderated by Akira OMOTO (Professor, Academy for Global Nuclear Safety and Security Agent, Tokyo Institute of Technology, Japan)

09:00-09:30 **Lecture 1**

“TBD”

Akira OMOTO (Professor, Tokyo Institute of Technology, Japan)

09:30-10:00 **Lecture 2**

“TBD”

Monica HAAGE (IAEA)

10:00-10:20 **Tea Break**

10:20-12:00 **Group Discussions**

12:00-13:30 **Lunch**

13:30-15:30 **Group Discussions**

15:30-15:50 **Tea Break**

Lecture Session 2:

Special Lectures

Chaired by Masaki SAITO (Director of Academy for Global Nuclear Safety and Security Agent, Tokyo Institute of Technology, Japan)

15:50-16:30 **Special Lecture 3**

“Safety for Generation IV Reactor Designs”

SAGAYAMA (Japan Atomic Energy Agency, Japan)

16:30-17:10 **Special Lecture 4**

“Implications of SMR on Safety, Security, and Safeguard”

Hadid Subki (IAEA)

February 24 (Tue)

(Room “Niji”, 29F, Grand Pacific Le Daiba)

Lecture Session 3:

Special Lectures

Chaired by Masaki SAITO (Director of Academy for Global Nuclear Safety and Security Agent, Tokyo Institute of Technology, Japan)

09:00-09:40 **Special Lecture 5**

“Japan’s Basic Energy Plan”

Hirobumi KAYAMA (Ministry of Economy, Trade, and Industry, Japan)

09:40-10:20 **Special Lecture 6**

“National Plan of Nuclear Power Plants in Vietnam”

Nguyen Tuan Khai (Deputy Director, Vietnam Atomic Energy Institute (VINATOM), Vietnam)

10:20-10:40 **Group Discussions**

10:40-11:00 **Tea Break**

Lecture Session 4:

Safety Improvement in Future Reactors

Chaired by Hideo NAGASAKA (Professor, Tokyo Institute of Technology, Japan)

11:00-11:30 **Lecture 3**

“Safety Improvement for External Hazard”

Kumiaki MORIYA (Hitachi, Japan)

11:30-12:00 **Lecture 4**

“Safety Features in Toshiba’s New LWRs”

Kazuhiro KAMEI (Toshiba, Japan)

12:00-12:30 **Lecture 5**

“Plant Safety Concept to Improve Maneuvering Accidents”

Shigemitsu OTSUKA (Mitsubishi, Japan)

12:30-13:00 **Group Discussions**

13:00-14:30 **Lunch**

14:30-15:00 **Special Lecture 7**

“TBD”

Jor-Shan CHOI (Associate Director, UC Berkeley Nuclear Research Center, USA)

February 24 (Tue)

(Room “Niji”, 29F, Grand Pacific Le Daiba)

Student Session 1

Chaired by Students and Young Professionals

15:00-15:30 **Orientation**

Akira OMOTO (Professor, Tokyo Institute of Technology, Japan)

15:30-15:50 **Tea Break**

15:50-17:00 **Group Discussions**

Each group will select one among six themes, provided in the session, and discuss to find solutions and present their thoughts in Student Session 3. A brief summary on the issue with some valuable papers will be distributed beforehand.

Free use of the internet for reference, but always clarify the source of all data/information

*In group discussion arguments, always clarify **why**.*

Seminar

(Closed: Only for Invited Students and Young Professionals)

February 25 (Wed)

(Room “Niji”, 29F, Grand Pacific Le Daiba)

Student Session 2

Chaired by Students and Young Professionals

09:00-10:20 **Group Discussions**

10:20-10:40 **Tea Break**

10:40-12:00 **Group Discussions**

12:00-13:30 **Lunch**

13:30-15:00 **Group Discussions and Presentation Preparation**

15:00-15:20 **Tea Break**

15:20-17:00 **Group Discussions and Presentation Preparation**

February 26 (Thu)

(Room “Niji”, 29F, Grand Pacific Le Daiba)

Student Session 3

Chaired by Students and Young Professionals

09:00-09:40 **Presentation of Group 1**

09:40-10:20 **Presentation of Group 2**

10:20-10:40 **Tea Break**

10:40-11:20 **Presentation of Group 3**

11:20-12:00 **Presentation of Group 4**

12:00-13:30 **Lunch**

13:30-14:10 **Presentation of Group 5**

14:10-14:50 **Presentation of Group 6**

14:50-15:10 **Tea Break**

Closing

Chaired by Masaki SAITO (Director of Academy for Global Nuclear Safety and Security Agent, Tokyo Institute of Technology, Japan)

15:10-16:00 **Special Lecture 8**

“The Roles of Civil Society towards Safety, Security, and Safeguards”

Noramlly Muslim (Adjunction Professor, Universiti Tenaga Nasional, Malaysia, and Former DDG, IAEA)

16:00-16:30 **Special Lecture 9**

“Capturing and Creating the Global Big Picture”

Tomihiko TANIGUCHI (Professor, Tokyo Institute of Technology, Japan)

16:30-17:30 **Awards and Closing Remarks**

The Four Seasons of Fukushima

