

# Tsuruga Summer Institute on Nuclear Energy 2010

— Report —

*Tsuruga Summer Institute on Nuclear Energy 2010*



# 敦賀「原子力」 夏の大学 2010

期間：平成22年9月6日（月）～11日（土）

場所：福井県若狭湾エネルギー研究センター、  
国際原子力情報・研修センター（JAEA）、  
関西電力美浜発電所、日本原電敦賀発電所



## そして未来へ…

はてしなく広がる可能性に向かって

お問い合わせ先  
敦賀「原子力」夏の大学2010事務局 担当：福井大学准教授：桑水波理  
電話番号：0776-27-9728 E-mail: kurwa@u-fukui.ac.jp

主催：福井大学、（独）日本原子力研究開発機構、（財）若狭湾エネルギー研究センター

September 2010

Organized by

National University Corporation University of Fukui

Independent Administrative Entity Japan Atomic Energy Agency

Wakasawan Energy Research Center

**1. Date: September 6, 2010 (Mon) –September 11, 2010 (Sat)**

**2. Students: Total 40 students**

◇From Fukui Prefecture:	21 students from Fukui University 2 students from Fukui University of Technology
◇From Kansai and Chubu Areas:	4 students from Kyoto University 2 students from Kinki University 2 students from Kobe University 2 students from Nagoya University 1 student from Kanazawa University 2 students from Shizuoka University
◇From Other Areas	1 student from Ibaraki University 1 student from Okayama University
:	2 students from Tokyo Institute of Technology

**3. Contents**

(1) “Lectures” (4 kinds)

- The current state of LWR nuclear fuel-cycle (Pluthermal) and its prospect (KEPCO)
  - Safety of LWR and Public Acceptance of LWR (INSS),
  - Experience in Operation of French FBR (CEA, France)
  - Concept of FBR (Research Institute of Nuclear Engineering, Fukui University)
- \*This is the first time of its kind without interpretation.

(2) “Exercises” (3 kinds)

- Simulator Operation
- In Service Inspection (ISI)
- Sodium Handling Technology

(3) “Topics”

- English Discussion: Topic, “Should Japan promote nuclear energy more?”
- Discussion with engineers and researchers of MONJU: Qs and As, and discussion concerning overall MONJU
- Exchange of views with Local Community (Exchanging Views with 16 Representatives from the Local (TOPIC: A Symbiotic relationship between NPP and the locals), & Visit to two local enterprises related to nuclear power plant technology (New)

(4) “Site Tours” (5 kinds)

- FBR “MONJU”
- “Mihama NPP” (KEPCO)

- "Tsuruga No. 3 & 4 units (APWR construction field)
- Decommissioning Center, "Fugen"
- Wakasa-wan Energy Research Center

(5) Open Lectures: ( 4 kinds ) (New)

- Performance Test of Monju and Its Next Stages Speaker Mr. Deshimaru, [JAEA]
- Global Development Strategy of Next Generation Reactor  
(Ultra-Compact Long-Life Reactor) and Global Strategy  
Dr. McWhirter [Terra Power]  
(Microsoft Venture Company)
- Development of Next Generation Reactor (4S, Super-Safe, Small & Simple  
Reactor)  
Speaker: Mr. Ozaki [Toshiba]
- Systems and Challenges in Nuclear Energy Education in France  
Speaker: Dr. Claude [CEA]

#### 4. Summary

"Tsuruga Summer Institute on Nuclear Energy 2010", the 5th in the series, for the duration of a week, had 40 students from 11 universities throughout Japan, mainly from Fukui University. It has concluded with a great success. This seminar featured a new trial, a social event of "Exchange views with local representatives" to discuss "A Symbiotic relationship between NPP and the locals," in one day longer program than the previous years. This was highly evaluated as well as other programs.

On a five-grade evaluation questionnaire, the seminars were highly evaluated with 5 points, the highest score, from 19 students out of 38 surveyed and 4 points from 15 (2 non responders). The seminar was graded as satisfactory by 90 percent of the students. Based on the result, we have concluded that Tsuruga Summer Institute was functional and effective nuclear education.

The reason for this is we believe that the seminar was able to provide students with unique programs such as hands-on exercises, which they cannot experience at their campuses. In addition to that, we report that, when comparing the average scores between pre-test and post-test, their knowledge has improved dramatically, from 27 points in pre-tests to 89 points afterward.

## 5. Pictures



**【Opening Ceremony】**



**【Lecture】**



**【Lecture-1】  
Mr. TAKABATA  
(KEPCO)**



**【Lecture -2】  
Mr. FUJIMURA  
(INSS)**



**【Lecture -2】  
Mr. UEDA  
(INSS)**



**【Lecture -3】  
Mr. Joel. GUIDEZ  
(CEA)**



**【Lecture -4】  
Mr. MOCHIZUKI  
(FUKUI Univ.)**



**【Topics-1】 English Discussion (Discussion & Presentation)**



**【Topics-2】 English Discussion (Discussion & Presentation)**







**【Exercise I】  
【Simulator Operation】**



**【Exercise II】  
【Sodium Handling】**



**【Exercise III】  
【In Service Inspection】**



**【Site Tour-1】  
KEPCO Mihama NPP**



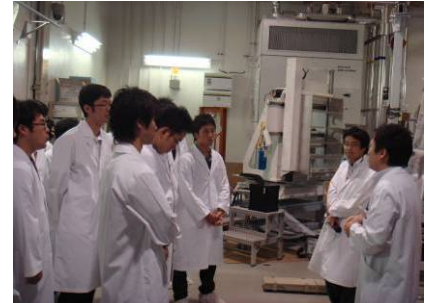
**【Site Tour-2】  
JEPSCO Tsuruga NPP Unit #3 & #4**



**【Site Tour-3】  
Decommissioning Center  
“Fugen”**



**【Site Tour-4】  
Prototype FBR “MONJU”**



**【Site Tour-5】  
Wakasa-wan Energy  
Research Center**



**【Friendship Event】 Reception & BBQ**



**【Lecture for Opening to the Public】**



**【Open Lecture I】  
Dr. DESHIMARU  
(JAEA)**



**【Open Lecture II】  
Mr. McWhirter  
(TerraPower)**



**【Open Lecture III】  
Mr. OZAKI  
(TOSHIBA)**



**【Open Lecture IV】  
Mr. Claude GUET  
(CEA)**



**【Topics-3】 Local Exchange Meeting**



**【Group Photo】**



**【Closing Ceremony】**