

Mar. 31, 2009

Report on International Seminar,
The Asian Workshop on Maintenance Technology
for Nuclear Power Plant

January 20-21, 2009

Institute of Fluid Science, Tohoku University

Hosted by

Tohoku University Global COE Program, “World Center of Education and Research for Trans-disciplinary Flow Dynamics”

Cooperated with

Tohoku-Hokkaido Area Chapter of Japan Society of Maintenance

Committee for Research into Nondestructive Inspection Techniques, Japan Society of Maintenance

Basic Atomic Energy Institute in Pusan National University, Korea

National Project for Advanced Nondestructive Diagnosis of NPP's Piping System, Korea

The Japan Society of Maintenance has promoted international activities to sophisticate maintenance activities in nuclear power plants. As part of activities, “The first Japan-Korea Joint Workshop on Maintenance Technology for Nuclear Power Plant” was held at Research Institute of Mechanical Technology, on January 24-25, 2008 at Pusan National University, Busan, Korea. 47 participants from Japan and Korea joined the workshop and exchanged the updated information on advanced maintenance for nuclear power plants. Taking the opportunity of the second workshop, it was developed into Asian workshop from bilateral one, inviting speakers from China and India. This workshop was hosted by Tohoku University Global COE Program, “World Center of Education and Research for Trans-disciplinary Flow Dynamics” which is promoting research on advanced flow risk management for nuclear power systems through measurement assimilation. The workshop consists of invited talks and tree organized sessions to discuss future activities in Asian region. A total of 46 people including professors, researchers in company, who came from Korea, India, India and Japan. Scope of the workshop included 1) Mechanism for damage in NPPs, 2) Novel inspection and monitoring techniques, and 3) Cultivation of the next generation of researchers for maintenology.



Conference venue – Institute of Fluid Science, Tohoku University, Sendai, Japan

On Jan. 20th, one of the chairs of this workshop; Professor Toshiyuki Takagi, Tohoku University firstly made a welcome speech. Then, four plenary lectures were given by leading researchers in Asia. Dr. Fumio Inada, Central Research Institute of Electric Power Industry, Japan gave a lecture on effect of LWR coolant flow on structural integrity in Japan. Professor Zhenmao Chen, Xi'an Jiaotong University, China introduced status of nuclear power industry and related maintenance technologies in China. Professor Joon-Hyun Lee, Pusan National University, Korea, gave a information on current status of proactive management of materials degradation (PMMD) program in Korea. Finally, Dr. B. Venkataraman, Indira Gandhi Centre for Atomic Research, India, introduced reliable and enhanced ISI in nuclear power plants through conventional and advanced NDE, giving the Indian experiences and perspectives.



Dr. Fumio Inada



Professor Joon-Hyun Lee



Dr. B. Venkataraman



Professor Zhenmao Chen

Plenary Lectures

After the plenary lectures, three organized sessions were held on the first and second day of the workshop, and 17 presentations were made. At OS1 "On-site Advanced Maintenance Activities", Dr. Tae-Ryong Kim, Korea Electric Power Research Institute, Korea gave an invited talk on Korean experience on PSR and PLiM in NPP. At the next session, OS2 "Advanced Inspection and Monitoring Techniques" Masahiro Otaka, Japan Nuclear Energy Safety Organization, Japan gave an invited talk on research activities regarding non-destructive techniques for NPPs in JNES. On the second day of the workshop, OS3 "Mechanism Study for Degradations of Structural Materials in NPPs" was held, and Professor Yutaka Watanabe, Tohoku University, Japan gave an invited talk on visualization of initiation processes of stress corrosion cracking.



Banquet



Group Photo

In the afternoon of the second day, On-site Session at Onagawa Nuclear Power Plant was held. 12 participants joint the session and exchange views on future maintenance activities.



On-site Session at Onagawa Nuclear Power Plant