

제7회 한-일 원자력 열수력 학술대회 결과 보고

○ 심포지움 명: 제7회 한-일 원자력 열수력 학술대회 (NTHAS7)

[7th Korea-Japan Symposium on Nuclear Thermal Hydraulics and Safety]

○ 개최 일시: 2010년 11월 14일 ~ 17일

○ 개최 장소: Ladena Condominium (춘천시)

○ NTHAS7 학술대회 개요

제7회 한-일 원자력 열수력 학술대회 (이하: NTHAS7)는 원자력 설계, 운전 및 관련 안전 연구 분야에서 선도적인 역할을 수행하고 있는 한국과 일본의 원자력 전문가들이 모여서 다양한 연구 현황과 결과를 발표, 토의하는 학술대회이다. NTHAS 학술대회는 1회 대회가 1998년 부산에서 개최된 이래로 일본 Fukuoka(2000년, 2회), 경주(2002년, 3회), Sapporo(2004년, 4회), 제주(2005년, 5회), Okinawa(2008년, 6회)에 이어 2010년 한국의 대표적인 호반 도시인 춘천에서 7회 대회를 개최하였다. NTHAS 학술대회는 1회 대회에서 6회 대회까지 진행되는 과정에서 원자력 열수력 및 안전 분야에 대한 다양한 최신 연구 현황과 결과들이 발표되어 심도 깊은 토의를 거치면서 원자력 열수력 및 안전 분야에 있어 국제적인 학회로 발전하였으며, 이 분야에 대한 기술 선도를 수행하고 있다.

본 NTHAS7 학술대회에는 Keynote lecture를 포함하여 총 95편의 논문이 발표되었으며, 참가 인원은 한국 111명, 일본 44명을 포함해서 155명으로 집계되었다. 학술대회 기간 중 원자력 열수력 기본 현상, 계측, 이상 유동 실험 및 코드 해석, 차세대 원자로 개발 현황 등에 대한 논문 발표 및 기술적인 토의들이 활발하게 이루어졌으며 춘천 주요 관광지 방문을 위한 cultural tour를 일정에 포함시켜 내, 외국인들에게 한국의 문화와 풍경을 소개하는 기회를 제공하였다.

○ NTHAS7 학술대회 조직 및 일정 (다음 쪽 NTHAS7 Final Announcement 참조)

Sunday, November 14, 2010 17:00 - 18:00 Registration

18:00 - 20:00 Reception

Monday, November 15, 2010 09:00 - 10:40 Opening and Plenary Session

11:10 - 17:40 Keynote Lecture and Technical Session

18:30 - 20:30 Banquet

Tuesday, November 16, 2010 09:00 - 12:00 Keynote Lecture and Technical Session

13:00 - 18:30 Culture Tour

Wednesday, November 17, 2010 09:00 - 16:00 Keynote Lecture and Technical Session

16:10 - 16:30 Closing Ceremony

Final Announcement



NTHAS7

Nov.14 - 17, 2010
Chuncheon, Korea

NTHAS7

7th Korea-Japan Symposium on Nuclear Thermal Hydraulics and Safety

November 14 - 17, 2010
Ladena Condominium, Chuncheon, Korea
Sponsored by
Korean Nuclear Society (KNS) and Atomic Energy Society of Japan (AESJ)
Organized by
Thermal Hydraulics Divisions of the KNS and AESJ
Conference Website: <http://www.nthas7.org>

Program

11/14 (Sun.)

- Registration
- Reception

11/15 (Mon.)

- Opening Ceremony
- Plenary Session
- Technical Sessions
- Banquet

11/16 (Tue.)

- Technical Sessions
- Culture Tour

11/17 (Wed.)

- Technical Sessions
- Closing Session

Conference Venue

Ladena Condominium,
Chuncheon, Korea
TEL) +82-33-240-8000
FAX) +82-33-243-9000
www.ladenaresort.com

Secretariat

Technical Program Chairs:
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About the Symposium

Korea and Japan are the two leading countries designing and building up-to-date nuclear power plants in World. In the hopes to contribute the nuclear system performance with enhanced safety, the thermal-hydraulics divisions of the KNS and the AESJ initiated a biennial symposium program across the sea: Korea-Japan Symposium on Nuclear Thermal Hydraulics and Safety (NTHAS). Since the first symposium (NTHAS1) in Busan, Korea in 1998, NTHAS has provided a unique opportunity to discuss up-to-date technical information and to interact with colleagues from the neighboring countries. The second to sixth meetings were held in Fukuoka (2000), Gyeongju (2002), Sapporo (2004), Jeju (2006), and Okinawa (2008) with great success in technical quality and number of participants. This year, the Seventh Korea-Japan Symposium on Nuclear Thermal Hydraulics and Safety (NTHAS7) will be held in Chuncheon, Korea. The official language of the symposium is English.

Technical Session Topics

- Thermal Hydraulics Fundamentals
- Two-Phase Flow Experiments and Analysis
- Computational Fluid Dynamics and Heat Transfer
- Water Reactor Thermal Hydraulics and Safety
- CHF and Post-CHF Heat Transfer
- Liquid Metal Reactor Thermal Hydraulics and Safety
- Instrumentation and Measurement Techniques
- Gas Cooled Reactor Thermal Hydraulics and Safety
- Safety Analysis and Code Development
- Fusion Reactor Thermal Hydraulics and Safety
- Severe Accident Experiments and Analysis
- Thermal-Hydraulic Aspects of Plant Operation
- Fluid-structure interactions
- Heat Exchanger Design and Turbo-machinery

Meeting Organization

| | | |
|------------------------------------|---|---------------------------------|
| Honorary Chairs | Prof. M. K. Chung (Pusan National Univ.) | Prof. A. Serizawa (Kyoto Univ.) |
| General Chairs | Prof. H. C. No (KAIST) | Prof. K. Mishima (INSS) |
| Advisory Committee Chairs | Prof. G. C. Park (SNU) | Prof. H. Ninokata (TIT) |
| Steering Committee Chairs | Dr. C.-H. Song (KAERI) | Dr. M. Ohtsuka (Hitachi) |
| Technical Program Committee Chairs | Prof. K. H. Bang (KMU) | Dr. H. Akimoto (JAEA) |
| Local Organizing Committee Chairs | Dr. J. J. Jeong (KAERI) | Prof. T. Okawa (Osaka Univ.) |

Call for papers

The NTHAS7 Program Committee is calling for contributed papers. Interested speakers are invited to submit papers.

Submission of Summaries

Authors should submit a 400 to 500 word summary through the NTHAS7 web site <http://www.nthas7.org> no later than May 15, 2010. The summary should contain introduction, description of work, results and conclusion followed by references cited in the text. No tables and figures are to be included. Acceptance will be based on review of technical contents of the prospective paper. In order to submit a summary, authors are requested to register in the NTHAS7 web site.

Submission of Full Papers

Authors receiving notification of summary acceptance should prepare their full-length papers. Detailed instructions for preparing full papers will be sent to the corresponding authors. The full paper must be electronically sent us through the NTHAS7 web site <http://www.nthas7.org> no later than July 31, 2010. Then, the review results will be sent to the corresponding authors by September 1, 2010. The final full-length paper, revised if required by reviewers, must be submitted no later than October 15, 2010.

Authors' schedule

| | |
|---|-------------------|
| Submission of summary | May 15, 2010 |
| Notification of summary acceptance | June 15, 2010 |
| Submission of full-paper manuscript | July 31, 2010 |
| Notification of full-paper acceptance and reviewers' comments | September 1, 2010 |
| Submission of final full-paper | October 22, 2010 |

Student Seminar at KAIST/KAERI in Daejeon

On November 12 and 13, there will be a two-day students seminar providing a playground for learning, information exchange and human networking. The researchers and engineers in the next generation are welcomed. The students attending the seminar will have a chance to learn the most advanced and up-to-date information about the nuclear thermal-hydraulics, as well as a privilege to expand human network through group activities and tours. The detailed information is given below.

- Lectures
 - Key note lectures (Topics and lecturers to be determined)
- Students activities and presentations
 - Presentation from the student's country representatives
 - Discussion about future research topics and human networking
 - Presentation about the group discussions
- Cultural/Technical tour
 - Chance to taste the essence of an ancient dynasty in Korea
 - Visiting research facilities and labs in KAERI and KAIST

Registration Fees

Participants should complete their registration* via NTHAS7 web site <http://www.nthas7.org> no later than **October 15, 2010**. Registration fees should also be sent to our bank account in *Korean Won* via bank transfer** by **October 15, 2010**. If a participant indicates "cash-on-site" in his/her registration form because of high bank commission fee and tax, we can accept cash (*Korean Won* only) at the registration desk. Also we can accept most credit cards including BC, VISA and MASTER card at the registration desk. After October 15, the registration will incur a ₩100,000 surcharge. Registration fees include a set of symposium proceedings (program book and CD), reception, banquet, and luncheon.

| | by October 15, 2010 | after October 15, 2010 |
|--|---------------------|------------------------|
| Registration fee for a KNS/AESJ member | ₩400,000 / ¥30,000 | ₩500,000 |
| Registration fee for a student | ₩200,000 / ¥15,000 | ₩250,000 |
| An extra coupon for banquet (on-site only) | | ₩70,000 |

- * The registration form will be available on our web site in September, 2010.
- ** Account of KNS for the bank transfer: WOORI BANK YUSEONG BRANCH
Account No.: 1006-201-342356 SWIFT code: HVBKCRSEXXX
(The remitter's name should be the participant's name. Separate remittance for each participant !!!)

Culture Tour

A half-day culture tour is scheduled on November 16th (Tuesday) afternoon to provide the participants with an opportunity to visit the famous tour sites nearby Chuncheon. The participants need to pay an extra charge of ₩30,000 for joining the culture tour. Entry fee will be charged as "cash-on-site" to the participants. The participants who want to join the culture tour need to check the registration form. Korean and Japanese guide will be provided for the tour program.

Prearranged Attractions: Lake Soyang and Soyang Dam, Kimyoojeong House of Literature, Nami Island
For visitor's information, please refer to <http://tour.chuncheon.go.kr/jap/index.html>
Kimyoojeong House of Literature: www.kimyoojeong.org (Korean information only)
Nami Island: www.namisum.com



Accommodation

The symposium will be held at LADENA Condominium. Please visit <http://www.ladenaresort.com> for detailed information. For the Korean participants, please make your room reservations by yourself no later than October 30, 2010. For the Japanese participants who want to stay at LADENA condominium, Local Organizing Committee will make your room reservations by proxy. In that case, the condominium reservation form should be written and sent to the Local Organizing Committee via e-mail no later than October 30, 2010. The condominium reservation form can be downloaded in the NTHAS7 web site.

Special discounted room rates for the NTHAS7 participants: ₩80,000
Room type: Family type (Double bed, Twin bed, Ondol: room with the Korean floor heating system)
Reservation Call: +82-033-240-8230 (Mr. Han, Sang-II and Mr. Park, Hyun-Su)

About Chuncheon

Chuncheon lies in the northeast of the country, located in a basin formed by the Soyang River and Han River. There are some large lakes around the city, most notably Lake Soyang and Lake Uiam. The area is renowned for its small river islands, such as Sangjungdo, Ha-Jungdo, Bungeo Island, and Wido. It is now a popular destination among East Asian tourists as it was featured in the popular Korean drama **Winter Sonata**.

For visitor's information, please refer to <http://tour.chuncheon.go.kr/iap/index.html>



Access to Chuncheon

- 1) From Incheon Airport (www.airport.kr/jpn/airport)
By bus (Take a bus at bus stop # 9C)
To Chuncheon
(via Gimpo Airport: www.airport.co.kr/doc/gimpo)
Travelling Time: 150 min
- 2) From Seoul
By train
From Cheong-nyang-ni Station
To Nam-chun-cheon Station
Travelling Time: 120 min
- 3) From Chuncheon Bus Terminal/Station to LADENA
By Taxi: Fare ~ ₩4,000



For more information, please e-mail to info@nhas7.org