



NURETH-21

21th International Topical Meeting on Nuclear Reactor Thermal Hydraulics

August 31(Sun)-September 5(Fri), 2025
BEXCO, Busan, Republic of Korea

Hosted by



한국원자력학회
KOREAN NUCLEAR SOCIETY

Sponsored by




and *International Nuclear Societies*



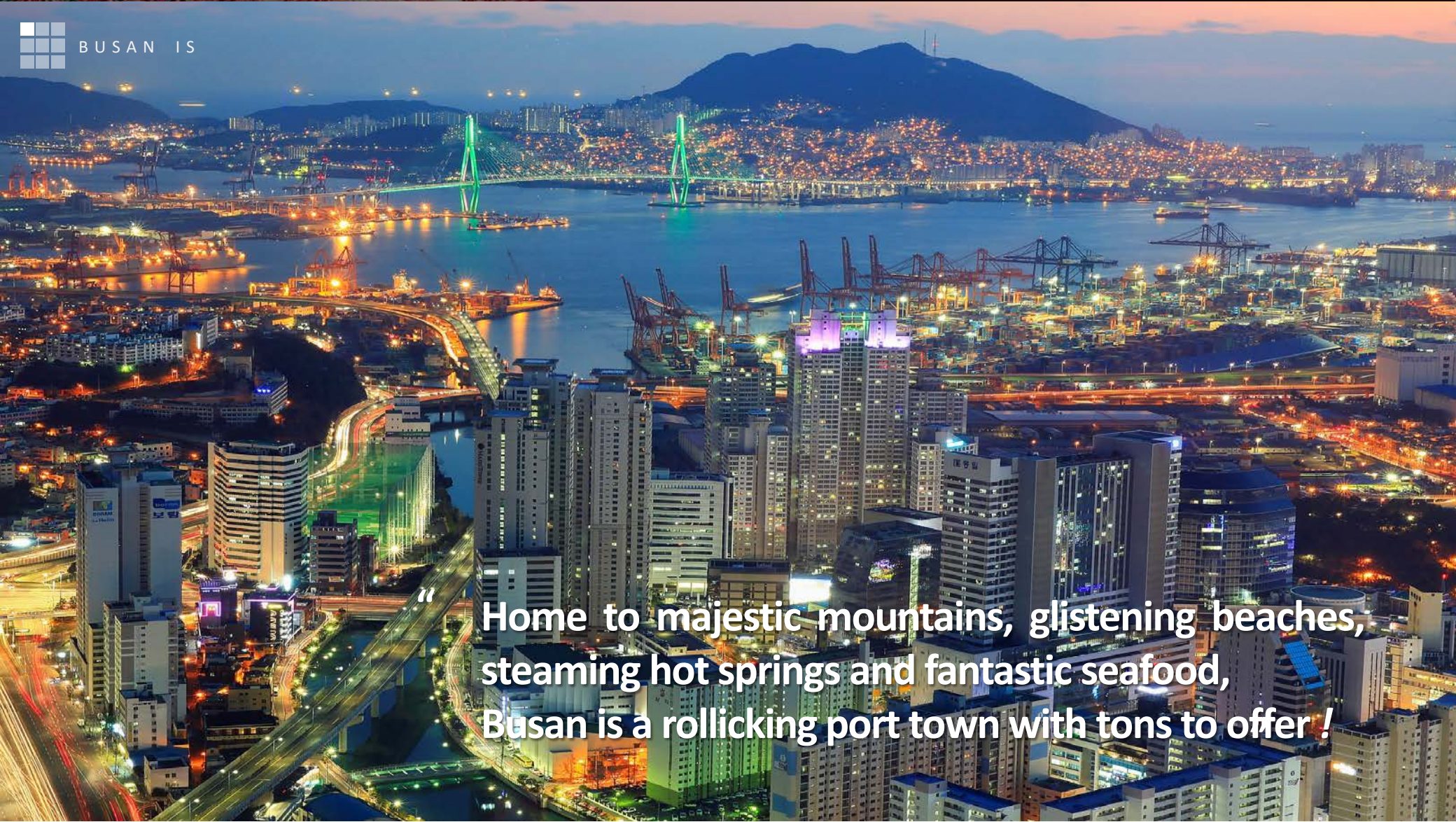
Location: Busan

Best Travel Destination
in Asia

Lonely Planet (2018)



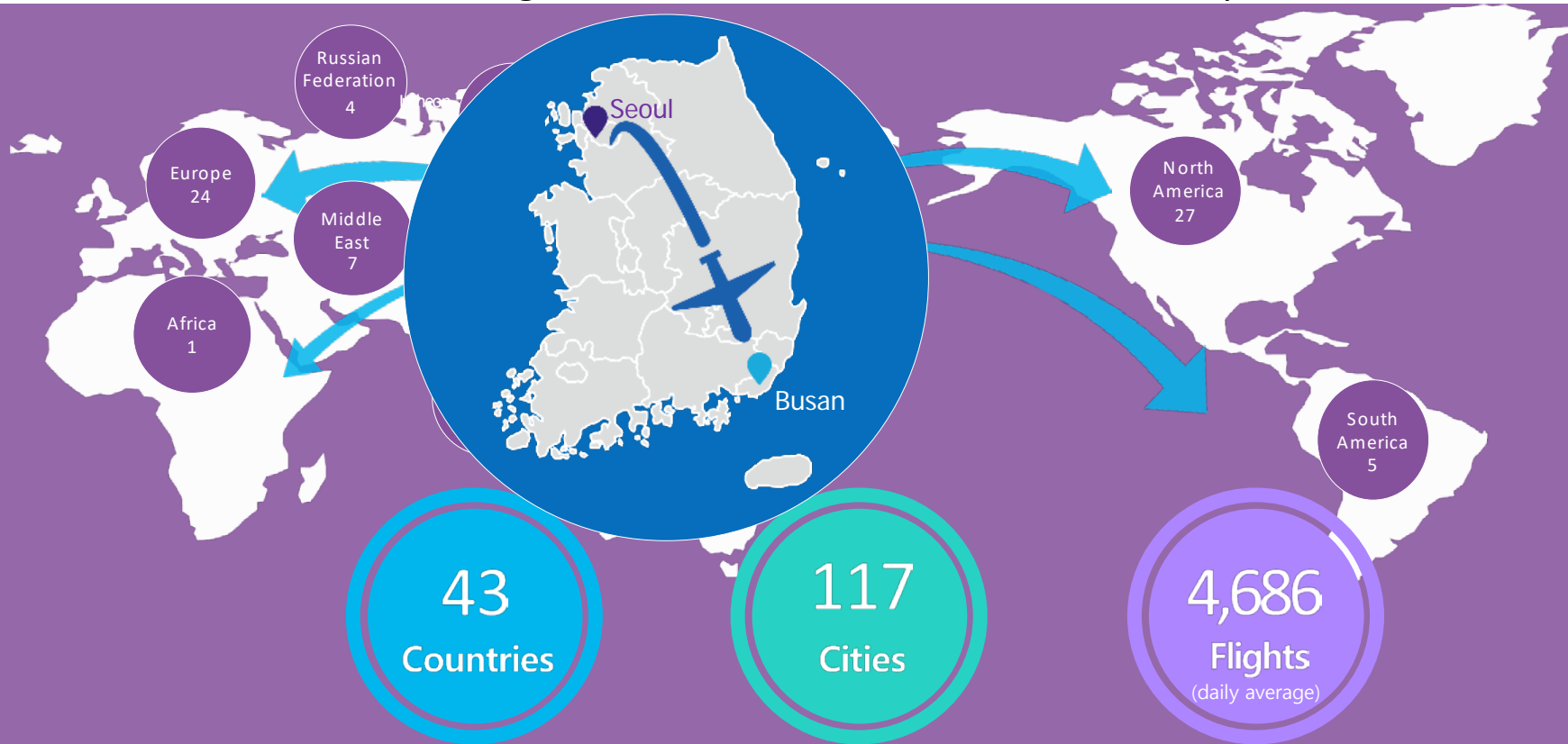
BUSAN IS



“ Home to majestic mountains, glistening beaches, steaming hot springs and fantastic seafood, Busan is a rollicking port town with tons to offer !

Busan's International Accessibility

Direct Flights to 'Seoul/Incheon' International Airport



Gimhae-Gimpo
50mins
4.8 flights / per day



Seoul Express Bus Terminal
4 hrs
28 times / per day

Dong Seoul Terminal
4hrs 15mins
7times/ per day

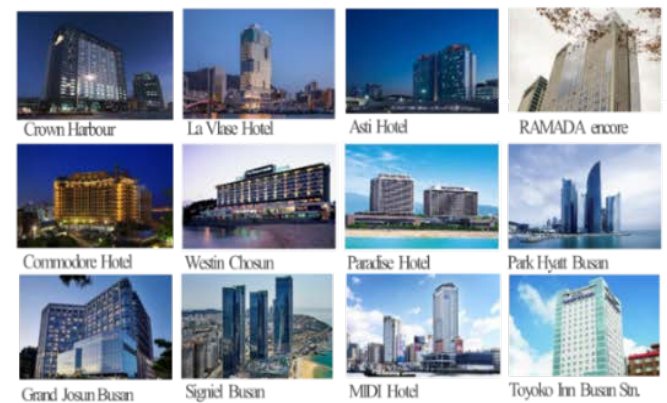


SRT-Suseo Station
2hrs 20mins
40 times / per day

KTX-Seoul Station
2hrs 25mins
66 times / per day



Accommodations
1,944 hotels
60,000 rooms



Convention Hall
• 1F: 10 meeting rooms
• 2F: 11 meeting rooms
• 3F: Grand Ballroom

Dining



Shopping



Venue: BEXCO

- BEXCO has world-class facilities and is surrounded by a vast selection of hotels, museums and galleries, parks, restaurants, and nightlife.
- A complete spectrum of services is provided to ensure total support to all of clients and it is a perfect place from which to begin any journey around the city.

Conference Organizers

GENERAL CHAIRS

Dr. Chul-Hwa Song, KAERI, Korea
Dr. Stephen M. Bajorek, NRC, USA
Prof. Francesco S. D'Auria, UNIPI, Italy

HONORARY CHAIRS

Prof. Em. Goon-Cherl Park, SNU, Korea
Prof. Yassin A. Hassan, TAMU USA
Prof. Em. H. Ninokata, Kyoto U., Japan

INT'L ADVISORY COMM. CHAIRS

Prof. F.-B. Cheung, PSU, USA
Prof. Jong Kim, EPRI-KAIST, Korea
Dr. S. Bilbao y Leon, WNA

TECHNICAL PROGRAM CHAIRS

Dr. KiYong Choi, KAERI, Korea
Prof. Elia Merzari, PSU, USA
Prof. A. Manera, ETHZ, Switzerland

STEERING COMM. CHAIRS

Prof. Jae-Jun Jeong, PNU, Korea
Dr. W. Dave Pointer, ORNL, USA
Dr. Bao-Wen Yang, DEQD, China

HONORS-AWARDS COMM. CHAIRS

Prof. Xiaodong Sun, UMich, USA
Dr. Tae-Soon Kwon, KAERI, Korea
Dr. Ferry Roelf, NRG, Netherlands

ORGANIZING COMM. CHAIRS

Prof. Byong-Jo Yun, PNU, Korea
Prof. Wade Marcum, OSU, USA
Dr. Kyoung-Ho Kang, KAERI, Korea

STUDENTS COMM. CHAIRS

Prof. Yong-Hoon Jeong, KAIST, Korea
Prof. Igor Bolotnov, NCSU, USA

PUBLICATION COMM. CHAIRS

Prof. Em. Hee-Cheon No, KAIST, Korea
Dr. Dillon R. Shaver, ANL, USA

- The Technical Program Committee will be established by inviting internationally well recognized experts who are representative of Asia, North America and Europe

TPC will be led by Dr. **Ki-Yong Choi** (KAERI) and Prof. **Hyoung-Kyu Cho** (SNU) in close cooperation with Prof.s **E. Merzari** (PSU) and **A. Manera** (ETHZ) among other.

Program at a glance (tentative)

Time/Room	Sun	Mon	Tues	Wed	Thurs	Fri		
08:00~09:00		PL-1 Opening Plenary 08:00~10:00	KL 1~3	KL 4~6	KL 7~9	TS-15(5x10) 08:10~10:15		
09:00~10:15	Reg.		TS-3(3x10) 09:00~10:15	TS-7(3x10) 09:00~10:15	TS-11(3x10) 09:00~10:15			
10:15~10:30	Reg.	Break	Break	Break	Break	Break		
10:30~11:00		PL-2 10:30~12:30	TS-4 (5x10) 10:30~12:35	TS-8(5x10) 10:30~12:35	TS-12(5x10) 10:30~12:35	PL-3: Closing Plenary 10:30~12:30		
11:00~11:30							student session (Lecture)	
11:30~12:00							student session (Poster)	
12:00~12:30								
12:30~14:00		Lunch	Lunch	Lunch	Lunch	Lunch		
14:00~16:05	Reg.	TS-1(5x10) 14:00 ~ 16:05	TS-5(5x10) 14:00~16:05	PS-1(4x40)	TS-9(5x10) 14:00~16:05	PS-3(4x40) Spouse/family	TS-13(5x10) 14:00~16:05	Tech Tour Break
16:05~16:30		student session (Tech.Tour)	Break	Break	Break	Break	Cultural	
16:30~18:35		TS-2(5x10) 16:30~18:35	TS-6(5x10) 16:30~18:35	PS-2(4x40)	TS-10(5x10) 16:30~18:35	PS-4(4x40) Spouse/family	TS-14(5x10) 16:30~18:35	
18:35~	Welcome Reception	Night Tour	Committee Dinner	Banquet				



Technical Program (draft)

- **Fundamental TH**
- **Computational TH**
- **Experimental TH**
- **Water-cooled Reactors TH**
 - PWR, HWR, BWR, VVER
 - ATF
 - Long-term Operation Issues
- **Operating Reactors Safety**
 - BEPU and Challenges in Licensing
 - Fuel Safety
 - Severe Accidents
 - Risk-informed Safety Assessment
- **Panel Sessions: on Important & Emerging TH and Safety Issues**

- **Advanced Reactors TH and Safety**
 - SMRs: Water-cooled, Non-water Cooled
 - Micro-Reactors
 - Space and Marine Applications
 - Test or Production Reactors
 - Gen-IV Reactors: MSR, GCR, LMR, etc.
 - Fusion Reactors
 - Advanced Reactor Fuels
- **Special Topics: on Advanced Technologies-related TH, including**
 - AI Applications to TH
 - Digital Twins and Virtual Reactors
 - Challenges in Flexible Operation
 - Integrated Energy System
 - International Cooperative Programs

The topics will be assessed by the TPC, prior to issuance of Call-for-Papers, to ensure that they cover the breadth of important areas relevant to '**Advances in Nuclear Thermal Hydraulics**'.

Social Events with Plentiful Attractions

- Welcome Reception: on Sun. evening
- Special Dinner: on Tues. evening
- Banquet: on Wed. evening
 - with traditional Korean show
- Family Programs: Busan and Nearby
 - Night Tour
 - Cultural Tour: Gyeongju, near Busan
 - Cooking Class, Temple Stay, etc.
- Technical Tours: on Fri. afternoon



KORAD
(Low- & Intermediate-Level
Waste disposal)



Machine shop at Doosan
Enerbility





Technical tours: on Friday afternoon
 LILW site near Gyeongju, or
 Doosan Enerbility Co. in Changwon



KORAD
 (Low- & Intermediate-Level
 Waste disposal)

Machine shop at Doosan
 Enerbility

Gyeongju



Busan

Changwon



Cultural and Technical Tours



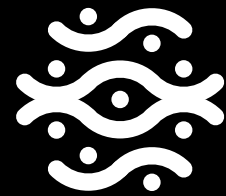
UNESCO World Heritage, Gyeongju

Program for Students and Young Professionals

- **Discounted rate for student registrants**
- **The Student Seminar and the Young Professional Program will be coordinated by the Student Committee.**
 - Student seminar
 - Consisting of seminar, poster session and lab tour
 - Best Student Poster Awards
 - Student poster sessions to allow students shorter submission times
 - Best Paper Awards for young professional members
- **Both Awards to be evaluated by the Technical Program Committee**
 - in Closed collaboration with the Honors & Awards Committee



**Busan is Ready for
NURETH-21 in 2025,
and
World Expo 2030 !**



**World EXPO 2030
BUSAN, KOREA**



**World Expo 2030
Candidate**



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August 31 (Sun) - September 5 (Fri), 2025

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www.nureth-21.org

Important Dates

- Abstract submission due *October 25, 2024*
- Full paper submission due *January 31, 2025*
- Final paper submission due *May 2, 2025*

SAVE the DATE

Hosted by



대한 원자력학회
KOREAN NUCLEAR SOCIETY

Sponsored by



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Contact US



• E-mail: chsong@kaeri.re.kr or bjyun@pnu.ac.kr

Contact us with any inquiry, offers to volunteer or possible sponsorship opportunities



• Website Open: <http://nureth21.org>

Coming up soon after the conference organizer is selected

TPC Chair: Dr. K.Y. Choi (kychoi@kaeri.re.kr), and
Ass. Chair: Prof. H.K. Cho (chohk@snu.ac.kr).



• Promotional Video

@ YOUTUBE
<https://youtu.be/qi7v19TVW2g>

@ Google Drive
https://drive.google.com/drive/u/2/folders/1PoVilp_0jP3M48YPrmhVUEmMvp8NPH4-



@ YOUTUBE



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