PSAM17 & ASRAM2024

Probabilistic Safety Assessment and Management & Asian Symposium on Risk Assessment and Management

October 7-11, 2024

Sendai International Center, Sendai, Miyagi, Japan

写真提供：宮城県観光戦略課

Welcome Message

Welcome Message from General Chair

The 17th meeting of PSAM, an international conference on risk assessment and management, will be held in Sendai, Japan, from October 7 to 11, 2024.

PSAM is a well-known conference for discussing nuclear risk with a 30-year history, and Japan has contributed as a board member of the IAPSAM, which held two conferences in Osaka in 2000 and in Tokyo in 2013 with great success.

Since 2024 is the year that PSAM will be held in the Asian region, we believe that it is a good opportunity to present the situation of our country 13 years after the Fukushima Daiichi Nuclear Power Plant accident and our efforts for the future. We are making preparations for the conference to be held in Asia with the participation of emerging nuclear energy countries in Asia as a joint conference of PSAM17 and ASRAM2024.

In Japan, various organizations are working on activities to utilize risk information, such as Risk Informed Performance Based (RIPB) nuclear regulatory inspections, disclosure of PRA results in safety improvement assessment notifications, and attempts to utilize risk information in maintenance departments.
It is of great significance that the results of risk assessment research and practical application in Japan, which has experienced the Fukushima Daiichi nuclear power plant accident, will be presented to the world for discussion in order to ensure the rational use of nuclear energy in the future with the understanding of society.

We look forward to welcoming you to Sendai.

Akira Yamaguchi
General Chair of PSAM17 & ASRAM2024
President, Nuclear Waste Management Organization of Japan (NUMO)

Table of Contents

Organizer and Committees

Organizer

The International Association for Probabilistic Safety Assessment and Management (IAPSAM)

PSAM17 & ASRAM2024 Steering Committee

Co-Organizer

Atomic Energy Society of Japan

Korean Nuclear Society

Chinese Nuclear Society

Steering Committee

General Chair, **Akira Yamaguchi**, Nuclear Waste Management Organization of Japan

Co-chair, **Takeshi Matsuoka**, National Maritime Research Institute, Utsunomiya University

Co-chair, **Yoshiyuki Asaoka** Central Research Institute of Electric Power Industry

Technical Program Committee

Chair, **Takashi Takata**, The University of Tokyo

Co-chair, **KIM Man Cheol**, Chung-Ang University, Korea

Co-chair, **Jun ZHAO**, Tsinghua University, China

Local Organizing Committee

Chair, **Yoshiyuki Narumiya**, Japan Nuclear Safety Institute

Co-chair, **Hiroki Iino**, The Federation of Electric Power Companies of Japan

Co-chair, **Junko Sugaya**, Japan NUS Co., Ltd.

International Advisory Committee

Chair, **Koji Shirai**, Central Research Institute of Electric Power Industry

Plenary Lecture 1

The Evolution of the Use of PRA and Risk-Informed Decision-Making in Japan

George Apostolakis

Nuclear Risk Research Center, Japan

Oct. 7 (Mon.) 09:30-10:30 Exhibition Hall 2

Plenary Lecture 2

Risk and Reliability Research at Idaho National Laboratory

Svetlana Lawrence

Idaho National Laboratory, United States

Oct.7 (Mon.) 10:50-11:50 Exhibition Hall 2

Keynote Lecture 1

**On Becoming Risk-Informed:
Lessons Learned from the Past, Present, and (Hopeful) Future of Risk-Informed Applications**

Fernando Ferrante

Electric Power Research Institute, United States

Oct. 8 (Tue.) 08:30-09:15 Exhibition Hall 2

Keynote Lecture 2

The Role of Risk Communication in Risk Governance

Yoshihito Takeda

Hokkaido University, Japan

Oct. 8 (Tue.) 08:30-09:15 Exhibition Hall 1-B

Keynote Lecture 3

**AI in Nuclear Safety:
Lessons from the Past, Insights for the Future**

Joon-Eon Yang

Korea Atomic Energy Research Institute, Korea

Oct. 8 (Tue.) 09:15-10:00 Exhibition Hall 2

Keynote Lecture 4

**Engaging Communities in Measuring and Assessing Individual Radiation Exposure:
Insights from Post-Fukushima Daiichi Nuclear Disaster**

Wataru Naito

National Institute of Advanced Industrial Science and Technology, Japan

Oct. 8 (Tue.) 09:15-10:00 Exhibition Hall 1-B

Keynote Lecture 5

Overview of Onagawa Nuclear Power Station's Response to the Great East Japan Earthquake and Implementation of Safety Improvement Measures

Tetsuya Matsunaga

Tohoku Electric Power Co., Inc., Japan

Oct. 9 (Wed.) 08:30-09:15 Exhibition Hall 2

Keynote Lecture 6

Current status of Fukushima Daiichi decommissioning: Issues and Perspectives

Moriyasu Abe

Tokyo Electric Power Company Holdings, Inc., Japan

Oct. 9 (Wed.) 09:15-10:00 Exhibition Hall 2

Keynote Lecture 7

Challenges for Risk-informed Regulation in Japan

Toshiyuki Koganeya

Nuclear Regulation Authority, Japan

Oct. 10 (Thu.) 08:30-09:15 Exhibition Hall 2

Keynote Lecture 8

Exploring Appropriate Risk Metrics for Advanced Nuclear Energy System

Jiejuan Tong

Tsinghua University, China

Oct. 10 (Thu.) 09:15-10:00 Exhibition Hall 2

Topical Session 1

Research to Sustain the Existing Fleet of Operating Nuclear Power Plants

Chair: Ronald Laurids Boring

Ronald Laurids Boring, Diego Mandelli, Shawn ST. Germain, Svetlana Lawrence (Idaho National Laboratory, United States), Zahra Mohaghegh (University of Illinois at Urbana-Champaign, United States)

Oct. 9 (Wed.) 13:00-15:00 Exhibition Hall 2

Topical Session 2

Emerging PSA Needs with respect to Advanced Reactor Technologies

Chair: Kevin Coyne

Kevin Coyne (U.S. Nuclear Regulatory Commission, United States), Michelle Bensi (University of Maryland, United States), Seung Jun Lee (Ulsan National Institute of Science and Technology, Korea), Zahra Mohaghegh (University of Illinois at Urbana-Champaign, United States), Eric Thornsbury (Electric Power Research Institute, United States)

Oct. 10 (Thu.) 13:00-15:00 Exhibition Hall 2

Topical Session 3

RIDM Activities of Japanese Utilities

Chair: Yoshiyuki Narumiya, Co-Chair: Fernando Ferrante

Yoshiyuki Narumiya (Japan Nuclear Safety Institute, Japan), Fernando Ferrante (Electric Power Research Institute, United States), Yasunobu Suzuki, (Hokkaido Electric Power Co., Inc., Japan), Shinnosuke Masuda, (Tohoku Electric Power Co., Inc., Japan), Tomohiro Kagawa (Tokyo Electric Power Company, Japan), Takuya Yamazaki (Chubu Electric Power, Japan), Kenichiro Ikuno (The Kansai Electric Power Co.,Inc, Japan)

Oct. 10 (Thu.) 15:20-17:50 Exhibition Hall 2

Topical Session 4

Overview of the 5th International Symposium on Probabilistic Methodologies for Nuclear Applications (ISPMNA5) - Further Practical Application of Probabilistic Fracture Mechanics –
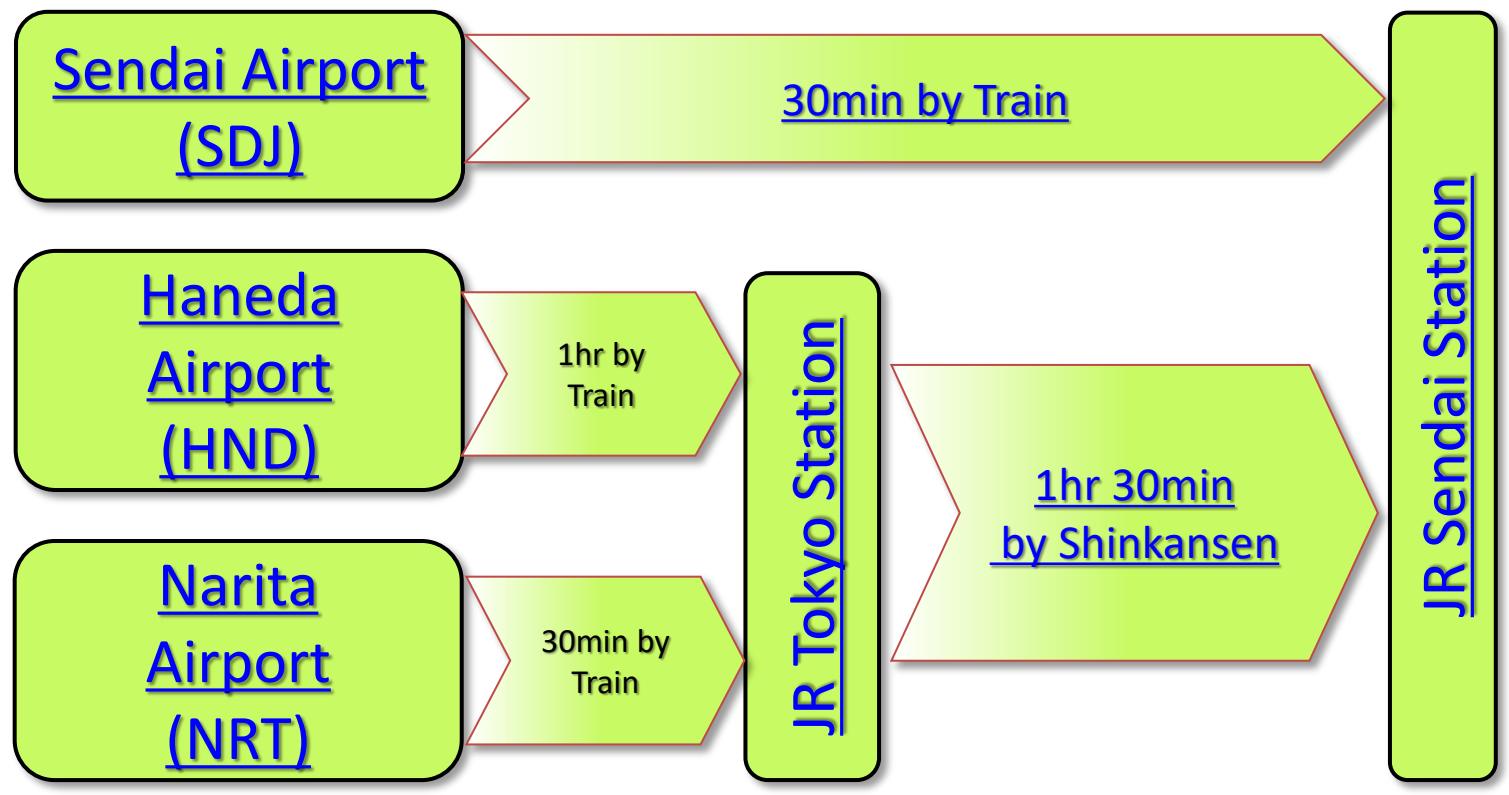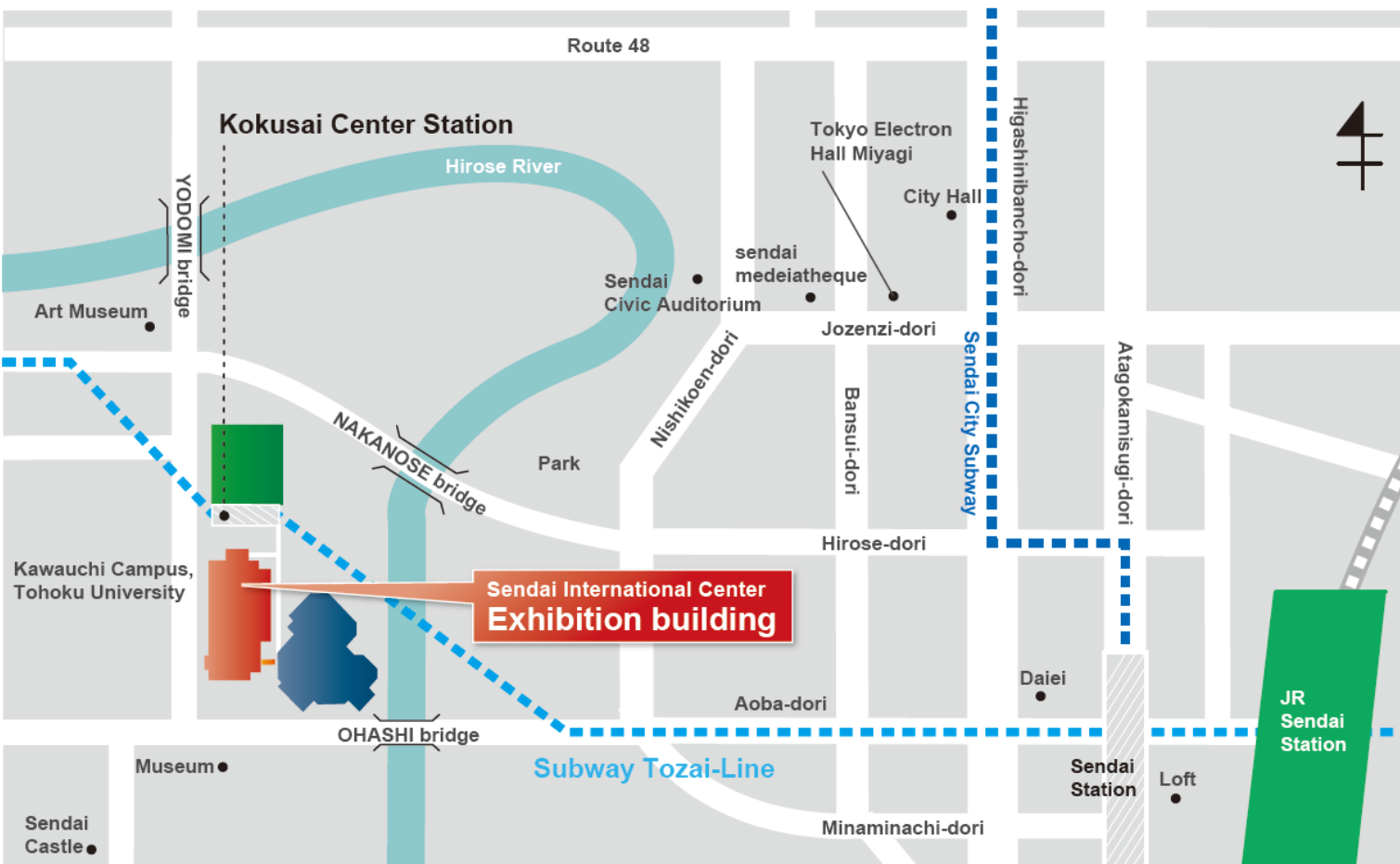
Chair: Jinya Katsuyama, Co-Chair: Yoshihito Yamaguchi

Tsinghua University, Jinya Katsuyama, Yu Maruyama (Japan Atomic Energy Agency, Japan), Cedric J. Sallaberry (Engineering Mechanics Corporation of Columbus, United States), Haruko Sasaki (The secretariat on the Nuclear Regulation Authority, Japan), Taku Sato (Atomic Energy Association, Japan)

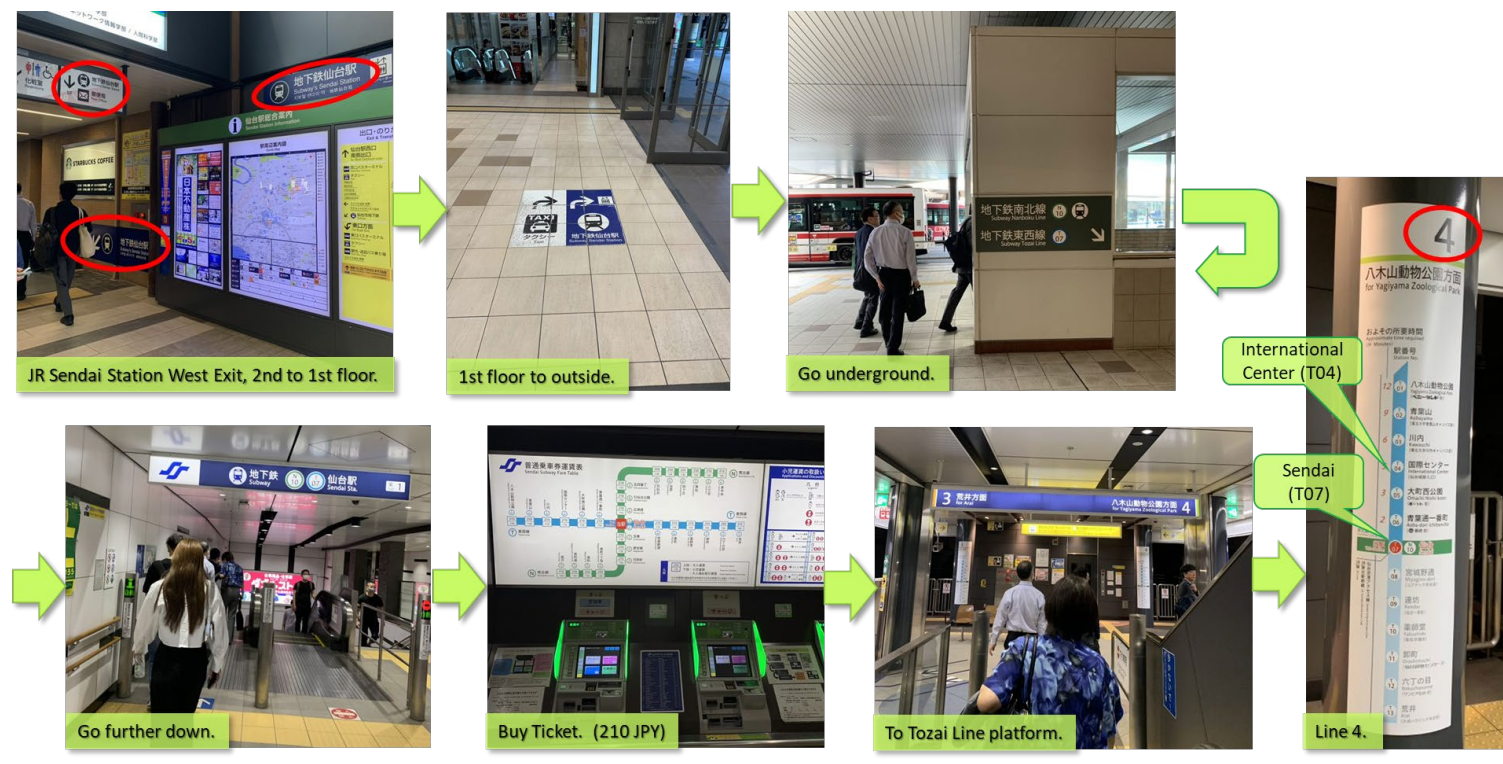*Oct. 11 (Fri.) 09:00-10:30 Exhibition Hall 2*

Conference Venue

Exhibition building, Sendai International Center

Map labels: Route 48, Kokusai Center Station, Hirose River, YODOMI bridge, Art Museum, NAKANOSE bridge, Kawauchi Campus, Tohoku University, Park, Nishikoen-dori, Sendai Civic Auditorium, sendai medeiatheque, Tokyo Electron Hall Miyagi, City Hall, Higashinibancho-dori, Jozenzi-dori, Bansui-dori, Sendai City Subway, Atagokamisugi-dori, Sendai International Center Exhibition building, Hirose-dori, OHASHI bridge, Subway Tozai-Line, Aoba-dori, Daiei, Sendai Castle, Museum, Sendai Station, Loft, Minaminachi-dori, JR Sendai Station

Sendai Airport (SDJ) → 30min by Train → JR Sendai Station

Haneda Airport (HND) → 1hr by Train → JR Tokyo Station → 1hr 30min by Shinkansen → JR Sendai Station

Narita Airport (NRT) → 30min by Train → JR Tokyo Station

Access

JR Sendai Station to Sendai International Center

JR Sendai Station West Exit, 2nd to 1st floor. — 1st floor to outside. — Go underground. — International Center (T04), Sendai (T07)

Go further down. — Buy Ticket. (210 JPY) — To Tozai Line platform. — Line 4.

Exit South 1 — International Center Station — Exhibition building of Sendai International Center — Entrance of the exhibition building

Welcome to PSAM17 & ASRAM2024 !

Floor map

Exhibition building

Meeting Room 1 - Technical

Meeting Room 2 - Technical

Entrance

Office/ First Aid Room

Waiting Room 1

Vestibule

Reception

Exhibition Hall 1-B
- Keynote
- Technical

Exhibition Hall 1-A
- Technical

Meeting Room 3 - Technical

Exhibition Hall 2
- Opening
- Plenary
- Keynote
- Topical
- Technical
- Closing

Meeting Room 4 - Technical

Foyer

Cloak room

Exhibition Hall 3
Lunch Box
Poster

Exhibition
Coffee
Poster

Banquet (Mon.) Award Luncheon (Tue.)

Conference building

Pantry

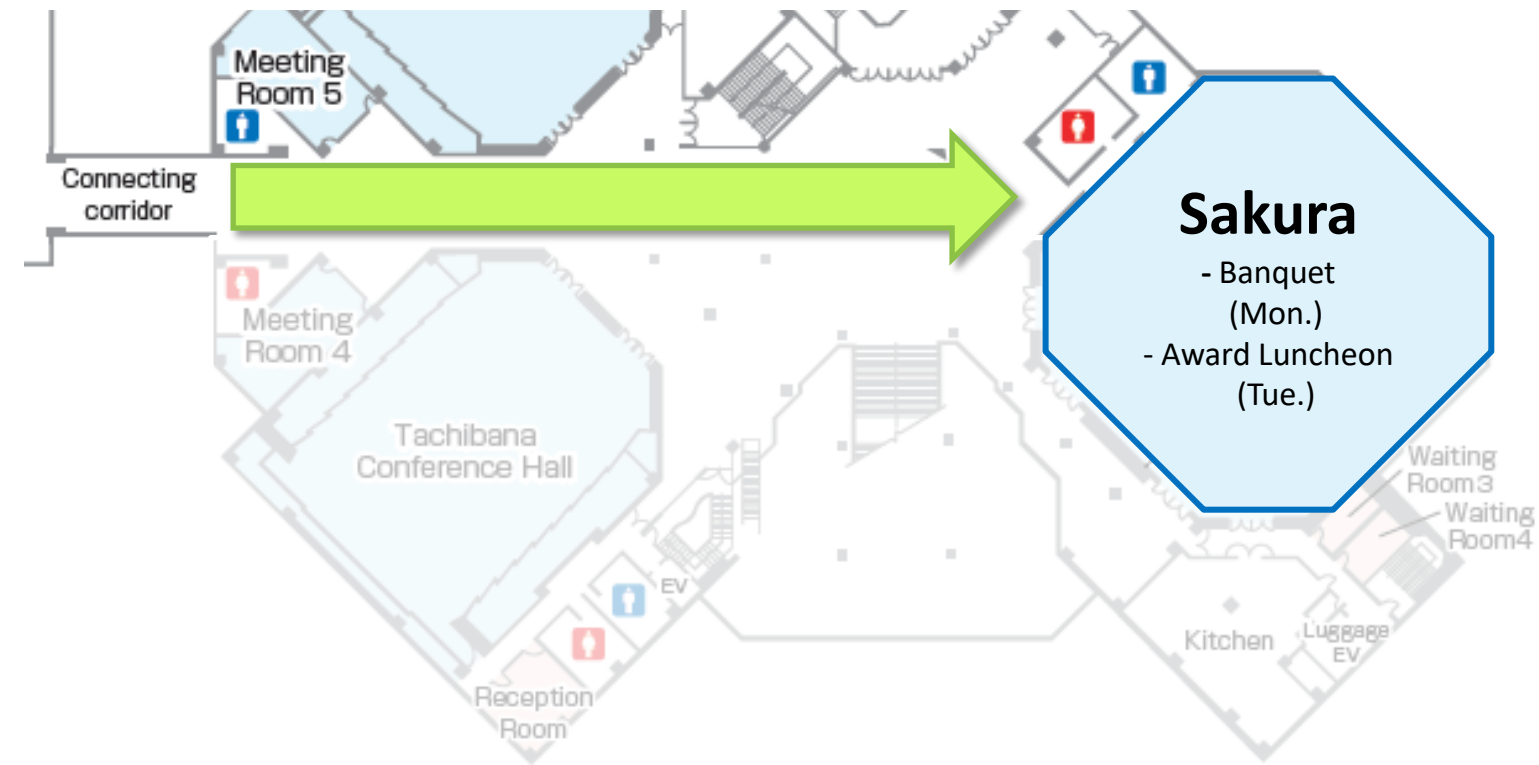VIP room

Banquet, Award Luncheon

Banquet

Oct. 7 (Mon.) 19:00-21:00 Sakura

Award Luncheon

Oct. 8 (Tue.) 11:30-13:00 Sakura

- Registration fee includes banquet fee and Awards Luncheon fee.

- Only accompanying persons must pay in advance.

Conference building

Meeting Room 5

Connecting corridor

Meeting Room 4

Tachibana Conference Hall

Reception Room

EV

Kitchen

Luggage EV

Sakura
- Banquet (Mon.)
- Award Luncheon (Tue.)

Waiting Room3

Waiting Room4

Exhibition, Coffee, Lunch

Exhibition Hall3

- Lunch boxes are available only for those who have made a reservation in advance.
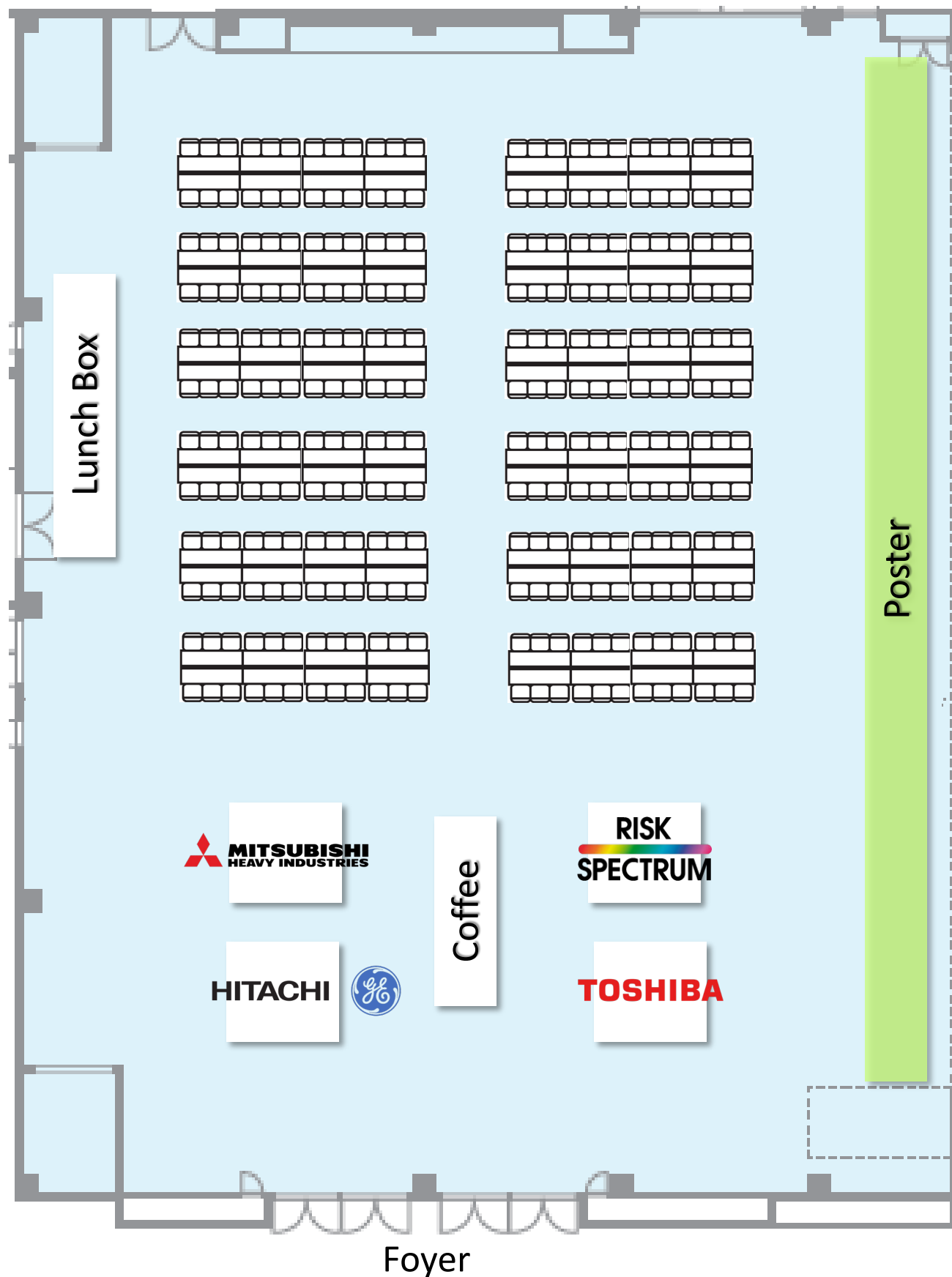
Lunch Map

1. **"Noaddress"** at Ryokusaikan
   - Hamburger, Drink, etc. >¥1,100

2. **"café mozart Metro"** at International Center Station
   - Pasta, Curry, etc., >¥1,500

3. **"café mozart theo"** at Sendai City Museum
   - Pasta, Curry, etc. >¥1,800, Closed on Monday

4. **"café mozart Klee's Coffee"** at Kawauchi Hagi Hall, Tohoku Univ.
   - Pasta, Rice dishes, etc. >¥1,500, Closed on Tuesday

5. **"Kawauchi no Mori Dining"**, Tohoku Univ.
   - School cafeteria, >¥500, Closed on Sunday

6. **"Kitchen Terrace Couleur"**, Tohoku Univ.
   - Curry, bowls, noodles, >¥500, Closed on Saturday and Sunday
     Serves halal curry upon order

7. Eat-in at the Aobayama Service Counter
   - Fried noodles, Fried rice, Pasta, etc., ¥500

Conference Program — Oct.7 (Mon.)

Time	Exhibition Hall 2	Exhibition Hall 1-A	Exhibition Hall 1-B	Meeting Room 1	Meeting Room 2	Meeting Room 3(A,B)	Meeting Room 4(A,B)	Exhibition Hall 3(A,B)	Sakura
08:15 - 09:00	Registration @Foyer								
09:00 - 09:30	Opening								
09:30 - 10:30	Plenary Lecture 1								
10:30 - 10:50								Coffee Break	
10:50 - 11:50	Plenary Lecture 2								
11:50 - 13:00								Lunch	
13:00 - 15:00	Risk Informed Applications 1	Risk Assessment Methods 1	Human Factors and Human Reliability 1	AI, Machine Learning 1	Accident Analysis and Modeling 1	Risk and Hazard Analyses 1	External Hazard PSA/PRA 1		
15:00 - 15:20								Coffee Break	
15:20 - 17:20	Risk Informed Applications 2	Risk Assessment Methods 2	Human Factors and Human Reliability 2	AI, Machine Learning 2	Accident Analysis and Modeling 2	RHA-2 Risk and Hazard Analyses 2	External Hazard PSA/PRA 2		
17:40 - 18:40								Student Poster 1	
19:00 - 21:00									Banquet

Conference Program — Oct.8 (Tue.)

Time	Exhibition Hall 2	Exhibition Hall 1-A	Exhibition Hall 1-B	Meeting Room 1	Meeting Room 2	Meeting Room 3(A,B)	Meeting Room 4(A,B)	Exhibition Hall 3(A,B)	Sakura
07:45 - 08:30	Registration @Foyer								
08:30 - 09:15	Keynote Lecture 1		Keynote Lecture 2						
09:15 - 10:00	Keynote Lecture 3		Keynote Lecture 4						
10:00 - 10:20								Coffee Break	
10:20 - 11:20								Student Poster 2	
11:30 - 13:00									Award Lunch
13:00 - 15:00	Risk Informed Applications 3	Risk Assessment Methods 3	Human Factors and Human Reliability 3	AI, Machine Learning 3	Accident Analysis and Modeling 3	Physical/Cyber Security	External Hazard PSA/PRA 3		
15:00 - 15:20								Coffee Break	
15:20 - 17:50	Internal Hazards PSA/PRA 1	Risk Assessment Methods 4	Human Factors and Human Reliability 4	Reliability Analysis 1	Accident Analysis and Modeling 4	Risk and Hazard Analyses 3	External Hazard PSA/PRA 4		

Conference Program — Oct.9 (Wed.)

Time	Exhibition Hall 2	Exhibition Hall 1-A	Exhibition Hall 1-B	Meeting Room 1	Meeting Room 2	Meeting Room 3(A,B)	Meeting Room 4(A,B)	Exhibition Hall 3(A,B)	Sakura
07:45 - 08:30	Registration @Foyer								
08:30 - 09:15	Keynote Lecture 5								
09:15 - 10:00	Keynote Lecture 6								
10:00 - 10:20								Coffee Break	
10:20 - 11:50	Risk Informed Applications 4	Consequence Modeling and Management	Environmental Risk Assessment 1	AI, Machine Learning 4	Multi-Unit, Multi-Source PSA/PRA 1	Digital Transformation	Maintenance Modelling and Optimization 1		
11:50 - 13:00								Lunch	
13:00 - 15:00	Topical Session 1	Risk Assessment Methods 5	Human Factors and Human Reliability 5	AI, Machine Learning 5	Multi-Unit, Multi-Source PSA/PRA 2	Risk and Hazard Analyses 4	Dynamic PSA/PRA 1		
15:00 - 15:20								Coffee Break	
15:20 - 17:50	Risk-Informed Performance-Based Regulation 1	Risk Assessment Methods 6	Human Factors and Human Reliability 6	Mathematical Method Reliability	Accident Analysis and Modeling 5	Internal Hazards PSA/PRA 2	Dynamic PSA/PRA 2		

Conference Program — Oct.10 (Thu.)

Time	Exhibition Hall 2	Exhibition Hall 1-A	Exhibition Hall 1-B	Meeting Room 1	Meeting Room 2	Meeting Room 3(A,B)	Meeting Room 4(A,B)	Exhibition Hall 3(A,B)	Sakura
07:45 - 08:30	Registration @Foyer								
08:30 - 09:15	Keynote Lecture 7								
09:15 - 10:00	Keynote Lecture 8								
10:00 - 10:20								Coffee Break	
10:20 - 11:50	Risk Informed Applications 5	Risk Assessment Methods 7	Environmental Risk Assessment 2	Structural Reliability Analysis Methods	Uncertainty and Sensitivity Analysis 1	Industrial Safety 1	Maintenance Modelling and Optimization 2		
11:50 - 13:00								Lunch	
13:00 - 15:00	Topical Session 2	Risk Assessment Methods 8	Resilience Engineering 1	AI, Machine Learning 6	Uncertainty and Sensitivity Analysis 2	Industrial Safety 2	Dynamic PSA/PRA 3		
15:00 - 15:20								Coffee Break	
15:20 - 17:50	Topical Session 3	Risk Assessment Methods 9	Resilience Engineering 2	Reliability Analysis 2	Risk-Informed Performance-Based Regulation 2	Internal Hazards PSA/PRA 3	Dynamic PSA/PRA 4		

Conference Program Oct.11 (Fir.)

Time	Exhibition Hall 2
08:15 - 09:00	Registration @Foyer
09:00 - 10:30	Topical Session 4
10:30 - 11:15	Closing and Ice Cream Social

Restaurant Guide

The Restaurant Guide for Sendai's Specialty Dishes

This section introduces numerous regional delicacies from the "City of Trees," including beef tongue, "zunda mochi" (green soybean rice cakes) and Japanese sake.
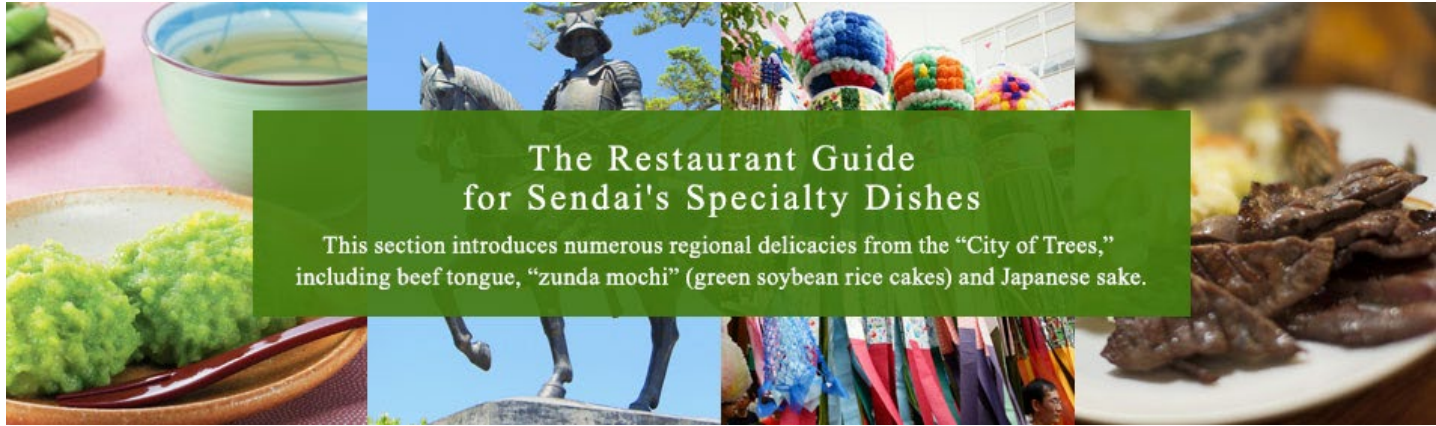
https://r.gnavi.co.jp/lang/s/en/?asp=area_sendai

Tripadvisor

https://www.tripadvisor.com/RestaurantsNear-g298249-d8285299-Sendai_International_Center-Sendai_Miyagi_Prefecture_Tohoku.html
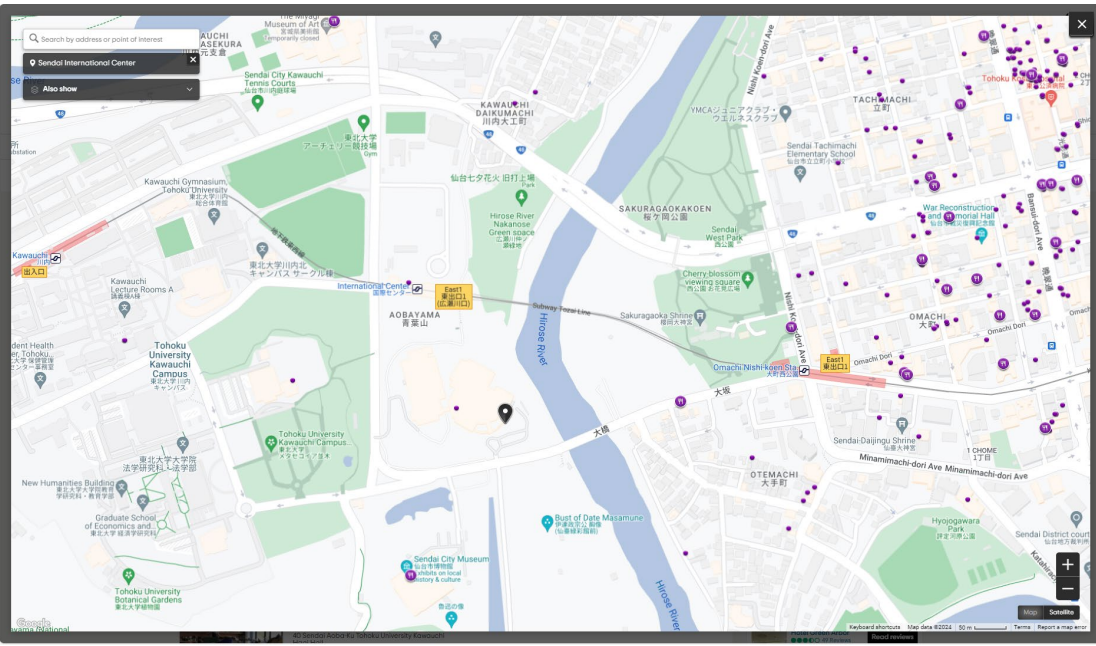
Daily Program

Exhibition Hall 2

Opening

09:00 - 09:30

Plenary Lecture 1

09:30 - 10:30

Chair:	**Jiejuan Tong** (Institute of Nuclear and New Energy Technology, Tsinghua University, China)
Co-Chair:	**Akira Yamaguhci** (Nuclear Waste Management Organization of Japan, Japan)
PSAM17&ASRAM 2024-PL01	**The Evolution of the Use of PRA and Risk-Informed Decision-Making in Japan** (Keynote) George Apostolakis (Nuclear Risk Research Center, Japan)

Plenary Lecture 2

10:50 - 11:50

Chair:	**Akira Yamaguhci** (Nuclear Waste Management Organization of Japan, Japan)
Co-Chair:	**Jiejuan Tong** (Institute of Nuclear and New Energy Technology, Tsinghua University, China)
PSAM17&ASRAM 2024-PL02	**Risk and Reliability Research at Idaho National Laboratory** Svetlana Lawrence (Idaho National Laboratory, United States)

Oct.7 (Mon.)

Exhibition Hall 2

Risk Informed Applications 1

13:00 - 15:00

Chair:	**Man Cheol Kim** (Chung-ang University, Korea)
Co-Chair:	**Takahiro Kuramoto** (NUCLEAR ENGINEERING,Ltd., Japan)
PSAM17&ASRAM 2024-1011	**PSA-based Intelligent Design Suggestions for Nuclear Power Plant** Ming Wang (CNPEC, China)
PSAM17&ASRAM 2024-1061	**Application of PSA in balance design of nuclear power plant** Bing Zhang, Ming Wang (State Key Laboratory of Nuclear Power Safety Technology and Equipment, China), Modi Lin (China Nuclear Power Engineering Co., Ltd., China)
PSAM17&ASRAM 2024-1331	**Consideration for PRA configuration control program at KEPCO's nuclear power plants** Koki Tawa, Kensuke Toyoshima, Hiroaki Yoshikawa, Takamasa Kurokawa (NUCLEAR ENGINEERING, LTD., Japan), Ryusei Ogawa, Kenichiro Ikuno, Takeshi Numata (The Kansai Electric Power Co., Inc., Japan)

Daily Program

Exhibition Hall 2

Risk Informed Applications 2

15:20 - 17:20

Chair:	**Carroll Trull** (Engineering Planning and Management Inc., United States)
Co-Chair:	**Yoshiyuki Narumiya** (Japan Nuclear Safety Institute, Japan)
PSAM17&ASRAM 2024-1105	**Risk Informed Applications in Japan - Review of a Selected Application Compared and Contrasted** Paul Hijeck, Carroll Trull (Engineering Planning and Management Inc., United States), Naoto Kitahara, Chikako Ogura, Yuji Komori (Toshiba Energy Systems & Solutions Corporation, Japan)
PSAM17&ASRAM 2024-1069	**Domestic Trends Toward the Introduction of On-Line Maintenance and Guideline for On-Line Maintenance** Mizuki Yoshida, Wataru Kawaguchi, Kazuo Sakuramoto (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1084	**Initiatives to improve safety of Ohma-Nuclear Power Plant by using the risk information in the construction phase** Yuusuke Arai, Tsukasa Ootani, Sadakane Hideaki, Tetsurou Ryuu (Electric Power Development Co., Japan)
PSAM17&ASRAM 2024-1120	**Feasibility Study on Risk-Informed Reactor Containment Vessels Test Interval Extension in Japan** Shunsuke Takahashi (Central Research Institute of Electric Power Industry, Japan), Manabu Watanabe, Takayoshi Kusunoki (CRIEPI, Japan)

Oct.7 (Mon.)

Exhibition Hall 1-A

Risk Assessment Methods 1

13:00 - 15:00

Chair:	**Tomohiko Ikegawa** (Hitachi, Ltd., Japan)
Co-Chair:	**Ziyue Liu** (University of Maryland, United States)
PSAM17&ASRAM 2024-1032	**Improvement of Risk Quantification Procedure for High-Speed Computing** Tomohiko Ikegawa (Hitachi, Ltd., Japan), Naoki Hirokawa (Hitachi-GE Nuclear Energy, Ltd., Japan), Hiroki Nakamura, Yuki Hirai, Kazunobu Noriyasu (The Chugoku Electric Power Company, Incorporated, Japan)
PSAM17&ASRAM 2024-1158	**Applications of Statistical Learning Methods in Natural Hazard Assessment** Ziyue Liu, Azin Al Kajbaf, Michelle Bensi (University of Maryland, United States)
SAM17&ASRAM2024-1293	**Effect of Nonlinearity of Building and Components on Response Correlation of Nuclear Power Plants** Masahiro Ourai, Yasuki Ohtori, Hitoshi Muta (Tokyo City University, Japan), Masato Nakajima (Central REsarch Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1300	**Study on Quantification of the Initiating Event Frequency of Loss of Service Water System in Nuclear Power Plants Via Equipment Reliability Prediction** Pengcheng Peng, Jiejuan Tong, Jun Zhao, Tao Liu, Fan Chen (Tsinghua University, China)

Daily Program

Oct.7 (Mon.)

Exhibition Hall 1-A

Risk Assessment Methods 2

15:20 - 17:20

Chair:	**Jan C. Stiller** (Gesellschaft für Anlagen- und Reaktorsicherheit gGmbH, Germany)
Co-Chair:	**Retsu Kojo** (Nuclear Regulation Authority, Japan)
PSAM17&ASRAM 2024-1014	**The International Common Cause Failure Data Exchange (ICDE) Project – Recent Insights** Jan C. Stiller (Gesellschaft für Anlagen- und Reaktorsicherheit gGmbH, Germany), Hayat Chatri (Canadian Nuclear Safety Commission, Canada), Gunnar Johanson (AFRY, Sweden), Jeffery Wood (United States Nuclear Regulatory Commission, United States)
PSAM17&ASRAM 2024-1135	**Development of comparison methodologies of importance analyses for Level 1 PRA and Level 2 PRA using multiple indicators** Retsu Kojo (Nuclear Regulation Authority, Japan)
PSAM17&ASRAM 2024-1183	**Optimization of initial value settings for human error probability in the analysis process of improved probabilistic risk assessment models** Kenichi Kanda, Kenichi Ihara, Hiroki Nakamura, Yuki Hirai, Takahiro Usui, Hitoshi Nojima, Satoshi Yoneda, Kazunobu Noriyasu, Yohei Moriya (The Chugoku Electric Power Company, Incorporated, Japan), Daichi Shiota, Naoki Hirokawa (Hitachi-GE Nuclear Energy, Ltd., Japan)
PSAM17&ASRAM 2024-1187	**Study of risk analysis methodology by using the insight from Internal flooding PRA** Yuta Fuwa, Yuichi Makita, Takamasa Kurokawa (Nuclear Engineering, Ltd., Japan), Wataru Oshima, Takeshi Numata (The Kansai Electric Power Co., Inc., Japan)

Exhibition Hall 1-B

Human Factors and Human Reliability 1

13:00 - 15:00

Chair:	**Andreas Bye** (IFE, Institute for Energy Technology, Norway)
Co-Chair:	**Kenichi Hayase** (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1013	**Handbook on Interviews for Qualitative Analysis in The Human Reliability Analysis with Emphasis on Narratives** Kenichi Hayase, Daisuke Takeda (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1100	**Human Success: Old wine in new bottles, or a shift of mindset for HRA in an automated world?** Andreas Bye (IFE, Institute for Energy Technology, Norway)
PSAM17&ASRAM 2024-1186	**ASEAN-ROK exploratory study on nuclear research reactor operating culture among ASEAN NPSR Member States** Wasin Vechgama (Korea Atomic Energy Research Institute - Korea National University of Science and Technology, Korea), Jinkyun Park, Joon-Eon Yang (Korea Atomic Energy Research Institute, Korea), Kanokporn Boonsirichai, Weerawat Pornroongruengchok, Kanokrat Tiyapun, Anantachai Pechrak, Saensuk Wetchagarun (Thailand Institute of Nuclear Technology (Public Organization), Thailand), Kampanart Silva, Pidpong Janta (National Energy Technology Center, National Science and Technology Development Agency, Thailand), Piyawan Krisanangkura (Office of Atoms for Peace, Thailand), Julia Abdul Karim, Phongsakorn Prak Tom, Mazleha Maskin, Ridzuan Abdul Mutalib (Malaysian Nuclear Agency, Malaysia), Ahmad Hassan Sallehudin Mohd Sarif (Universiti Tun Hussein Onn Malaysia, Malaysia), Topan Setiadipura, Ratih Luhuring Tyas, Restu Maerani, Mohammad Subekti (National Research and Innovation Agency, Indonesia), Kien Cuong Nguyen, Doan Hai Dang Vo (Dalat Nuclear Research Institute, Vietnam Atomic Energy Institute, Viet Nam), Carlo Arcilla, Dan Mangulabnan, Eugene Gregorio (Philippine Nuclear Research Institute, Philippines)
PSAM17&ASRAM 2024-1244	**Needs for change of human reliability analysis for new advanced reactors** Awwal Arigi, Andreas Bye (Institute for energy technology, Norway)

Daily Program

Oct.7 (Mon.)

Exhibition Hall 1-B

Meeting Room 1

Human Factors and Human Reliability 2

AI, Machine Learning 1

15:20 - 17:20

13:00 - 15:00

Chair:	**Gueorgui Ivanov Petkov** (Sofia University St. Kliment Ohridski, Bulgaria)
Co-Chair:	**Yung Hsien James Chang** (US Nuclear Regulatory Commission, United States)
PSAM17&ASRAM 2024-1157	**Misjudgment explanation in ambiguous and comparative contexts** Gueorgui Ivanov Petkov (Sofia University St. Kliment Ohridski, Bulgaria)
PSAM17&ASRAM 2024-1111	**Exploring Performance Shaping Factors for Human-Autonomy Teams in Automated Driving System Operations** Camila Correa-Jullian, Marilia Ramos, Ali Mosleh, Jiaqi Ma (University of California Los Angeles, United States)
PSAM17&ASRAM 2024-1151	**Improving safety and performance in high-risk industries: an approach to human factors analysis through wearable devices** Plinio Ramos, Caio Souto Maior, Marcio Moura, Isis Lins (Universidade Federal de Pernambuco, Brazil)
PSAM17&ASRAM 2024-1311	**IDHEAS Suite for Human Reliability Analysis - - An Overview and Recent Developmental Focuses** Yung Hsien James Chang (U.S. Nuclear Regulatory Commission, United States)

Chair:	**Ikuo Kinoshita** (Institute of Nuclear Safety System, Inc., Japan)
Co-Chair:	**Seung Geun Kim** (Korea Atomic Energy Research Institute, Korea)
PSAM17&ASRAM 2024-1029	**A Limit Surface Search for PWR LOCA Transients Using Adaptive Machine Learning Techniques** Ikuo Kinoshita (Institute of Nuclear Safety System, Inc., Japan)
SAM17&ASRAM 2024-1059	**Enhancing Nuclear Power Plant Safety and Reliability: Integrating Explainable AI for Operator Performance Optimization** Merouane Najar, He Wang (harbin engineering university , China)
PSAM17&ASRAM 2024-1086	**Application of Open Set Recognition Method for Neural Network-based Models in Nuclear Power Plant** Seung Geun Kim, Young Ho Chae, Seoryong Koo (Korea Atomic Energy Research Institute, Korea)
PSAM17&ASRAM 2024-1227	**Research on intelligent alarms in nuclear power plants based on machine learning** Jianhua Chen (Shenzhen University, China), Sijuan Chen (Shenzhen University, China , China), Jinye Guo, Ming Yang (Shenzhen University, China, China), Chenxi Zhang, Faqiang Qian (Shenzhen University, China , China)

Daily Program

Oct.7 (Mon.)

Meeting Room 1

AI, Machine Learning 2

15:20 - 17:20

Chair:	**Diego Mandelli** (Idaho National Laboratory, United States)
Co-Chair:	**Philipp Mell** (Institute of Machine Components, University of Stuttgart, Germany)
PSAM17&ASRAM 2024-1110	**AI-based estimation of the duration of reliability demonstration tests for components** Philipp Mell, Martin Dazer (Institute of Machine Components, University of Stuttgart, Germany)
PSAM17&ASRAM 2024-1223	**Application of AI large models for risk reduction of gynecological tumor diagnosis and treatment** Faqiang Qian, Ming Yang, Sijuan Chen (Shenzhen University, China), Kun Shi (Guangzhou Women and Children's Medical Center, China), Chenxi Zhang, Jianhua Chen (Shenzhen University, China), Kunze Yang (Pennsylvania State University, China)
PSAM17&ASRAM 2024-1355	**Research On the Leakage Identification Method of the Hydrogen Doping Station Site Based On Image Processing** Yao Liu, Haiyang Yu, Xiaopeng Yu (China University of Petroleum (Beijing), China), Qingqing Xu (China University of Petroleum, Beijing, China), Laibin Zhang (China University of Petroleum (Beijing), China), Yuanliang Jiang (Research Institute of Petroleum Exploration & Development, PetroChina,, China), Haipeng Liu (Sino-Pipeline International Company Limited, China)
PSAM17&ASRAM 2024-1360	**Intelligent Defects Recognition Method of Weld Radiographic Film Based on YOLO V5** Zhenxiao Guo, Qingqing Xu, Jiawei Huang, Shaohua Dong (China University of Petroleum, Beijing, China), Xingtao Li, Shengyang Yu (China National Oil and Gas Exploration and Development Co, China), Yong Guo (Tarim Oil&Gas Transportation Branch Company of West Pipeline Co.,Ltd，China Oil&Gas Pipeline Network Corporation, China)

Meeting Room 2

Accident Analysis and Modeling 1

13:00 - 15:00

Chair:	**Michael Hage** (Gesellschaft fuer Anlagen- und Reaktorsicherheit, Germany)
Co-Chair:	**Hiromasa Chitose** (HGNE, Japan)
PSAM17&ASRAM 2024-1221	**Study on the Atmospheric Release of Radioactive Materials in Small modular reactor (SMR) Accidents in Thailand** Piyawan Krisanangkura (Office of Atoms for Peace, Thailand, Thailand), Wasin Vechgama (Thailand Institute of Nuclear Technology (Public Organization), Thailand), Kampanart Silva (National Energy Technology Center, National Science and Technology Development Agency, Thailand), Narakhan Khunsrimek (Chulalongkorn University, Thailand)
PSAM17&ASRAM 2024-1255	**Verification of water radiolysis model in MAAP5.06** Seiji Yamasaki, Yutaka Yoshida, Hiromasa Chitose (Hitachi-GE Nuclear Energy, Ltd., Japan)
PSAM17&ASRAM 2024-1259	**GRS SOURCE TERM PROGNOSIS SOFTWARE FASTPRO: RECENT DEVELOPMENTS AND IMPROVEMENTS** Michael Hage, Manuel Obergfell (Gesellschaft fuer Anlagen- und Reaktorsicherheit, Germany)
PSAM17&ASRAM 2024-1287	**Comparison of LSTF Test (SB-CL-18) and PWR Plant Analysis** Kaho Goto, Hideki Yagihashi, Masashi Sekine, Naofumi Tsukamoto (Nuclear Regulation Authority, Japan)

Daily Program

Meeting Room 2

Accident Analysis and Modeling 2

15:20 - 17:20

Chair:	**Robert Hudson** (EDF Energy, United Kingdom)
Co-Chair:	**Rainer Christoph Hausherr** (KKG, Switzerland)
PSAM17&ASRAM 2024-1142	**A history and proposed development of the Sizewell B Level 2 PSA** Robert Hudson (EDF Energy, United Kingdom)
PSAM17&ASRAM 2024-1376	**Sutudy on Safety analysis of floating nuclear power generaation with PRA** Masao Uesaka (Nagaoka University of Technology, Japan), Hiroyuki Nakano (Tokyo Electric Power Comany Holdings, Japan), Daisuke Hara (Tokyo Institute of Technology, Japan)
PSAM17&ASRAM 2024-1234	**Development of Specific PSA-tailored ESDs: A real-case industrial-scale implementation** Rainer Christoph Hausherr, Dusko Kancev (KKG, Switzerland)

Oct.7 (Mon.)

Meeting Room 3(A,B)

Risk and Hazard Analyses 1

13:00 - 15:00

Chair:	**Sung-Min Shin** (Korea Atomic Energy Research Institute, Korea)
Co-Chair:	**Pia Humalajoki** (Radiation and Nuclear Safety Authority in Finland, Finland)
PSAM17&ASRAM 2024-1058	**Development of a STPA tool in consideration of hazard analysis for NPP I&C systems** Sung-Min Shin (Korea Atomic Energy Research Institute, Korea), Seong Woo Kang (Korea Atomic Energy Research Insititute, Korea), Park Jinkyun (Korea Atomic Energy Research Insititute Korea, Korea)
PSAM17&ASRAM 2024-1019	**Pilot study on STAMP-based hazard analysis for SMR I&C system: NuScale ECCS** Sung-Min Shin, Seung Ki Shin, Jin Hee Park (Korea Atomic Energy Research institute, Korea)
PSAM17&ASRAM 2024-1097	**Applicability of STAMP/STPA to the Multi-unit Human Failure Event Analysis for the Multi-unit Accident Safety Assessment** Seong Woo Kang, Jong Woo Park, Sung-Min Shin, Jinkyun Park (Korea Atomic Energy Research Institute, Korea)
PSAM17&ASRAM 2024-1139	**Regulatory viewpoints on risk assessment of spent nuclear fuel final disposal** Pia Humalajoki, Matti Lehto, Ari Julin (Radiation and Nuclear Safety Authority in Finland, Finland)

Daily Program

Meeting Room 3(A,B)

RHA-2. Risk and Hazard Analyses 2

15:20 - 17:20

Chair:	**Ali Mosleh** (University of California , United States)
Co-Chair:	**Hiroko Itoh** (National Institute of Maritime, Port and Aviation Technology, Japan)
PSAM17&ASRAM 2024-1242	**Deriving human-system safety metrics for heavy-duty automated vehicle applications through Concurrent Task Analysis** Anna Sofia Cosmin-Spanoche, Camila Correa-Juillian, Xin Xia, Ali Mosleh, Jiaqi Ma (University of California, Los Angeles, United States)
PSAM17&ASRAM 2024-1283	**Exploring ConOps Prototypes for Initial Risk Assessment of Autonomous Ship Operations** Hiroko Itoh, Takeshi Matsuoka (National Institute of Maritime, Port and Aviation Technology, Japan)
PSAM17&ASRAM 2024-1345	**Quantitative Risk Analysis of Collisions of Maritime Autonomous Surface Ships** Tomohiro Yuzui, Hiroko Itoh (National Maritime Research Institute, National Institute of Maritime, Port and Aviation Technology, Japan)
PSAM17&ASRAM 2024-1377	**Development of a risk indicator for ship drift groundings** Spencer Dugan (Norwegian University of Science and Technology, Norway), Ingrid Bouwer Utne (NTNU, Norway)

Oct.7 (Mon.)

Meeting Room 4(A,B)

External Hazard PSA/PRA 1

13:00 - 15:00

Chair:	**Taotao Zhou** (China University of Petroleum-Beijing, China)
Co-Chair:	**Masato Nakajima** (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1090	**Effectiveness Evaluation of the Measures for Improving Resilience of Nuclear Structures against Excessive Earthquake (1) Fragility Evaluation of Reactor Vessel based on Structural Analysis** Hiroyuki Nishino, Kenichi Kurisaka, Satoshi Futagami, Tomoyoshi Watakabe, Hidemasa Yamano (Japan Atomic Energy Agency, Japan)
PSAM17&ASRAM 2024-1083	**Effectiveness Evaluation of the Measures for Improving Resilience of Nuclear Structures against Excessive Earthquake (2) Accident Sequences Analysis** Kenichi Kurisaka, Hiroyuki Nishino, Hidemasa Yamano (Japan Atomic Energy Agency, Japan)
PSAM17&ASRAM 2024-1261	**An Overview of Dependency Modeling for Nuclear Plant Seismic Probabilistic Risk Assessment with Open-Source Codes** Taotao Zhou, Laibin Zhang (China University of Petroleum-Beijing, China), Mohammad Modarres (University of Maryland College Park, United States), Enrique Lopez Droguett (University of California Los Angeles, United States)
PSAM17&ASRAM 2024-1193	**Enhancement of Seismic Fragility Evaluation of Equipment Considering Correlation and Impact Analyses on Risk Quantification** Masato Nakajima, Yohei Ono (Central Research Institute of Electric Power Industry, Japan), Toshinobu Kita, Ryotaro Tatsuzawa, Michiyoshi Sato, Takahiro Watanabe (Tokyo Electric Power Company Holdings, Inc., Japan), Shuhei Matsunaka, Ryotaro Sato (TEPCO SYSTEMS CORPORATION, Japan)

Daily Program

Meeting Room 4(A,B)

External Hazard PSA/PRA 2

15:20 - 17:20

Chair:	**Dong-San Kim** (KAERI, Korea)
Co-Chair:	**Ryusuke Haraguchi** (Mitsubishi Heavy Industries, Ltd., Japan)
PSAM17&ASRAM 2024-1033	**Development of a regulatory model for Seismic Probabilistic Safety Assessment** Seokwoo Sohn (Future & Challenge, Korea), Yein Seo, Jaebeol Hong (Future & Challange, Korea), Kyung Min Kang, Yongjin Kim (Korea Institute of Nuclear Safety, Korea)
PSAM17&ASRAM 2024-1163	**Study on a Method for Evaluating the Seismic Fragilities Considering the Response Correlation for Seismic PRA** Keita Fujiwara, Toshio Teragaki, Kenta Hibino, Kotaro Kubo (Nuclear Regulation Authority JAPAN, Japan)
PSAM17&ASRAM 2024-1177	**Study of Detailing Scenarios Leading directly to Core Damage in Seismic PRA (1) Extracting Issues for Introducing Expert Evaluation** Takahiro Watanabe (Tokyo Electric Power Company Holdings, Inc., Japan), Kenichiro Ikuno (The Kansai Electric Power Co., Inc., Japan), Shuhei Matsunaka (TEPCO SYSTEMS CORPORATION, Japan), Bumpei Fujioka (Hitachi-GE Nuclear Energy, Ltd., Japan), Ryusuke Haraguchi (Mitsubishi Heavy Industries Ltd., Japan), Takashi Kato (Toshiba Energy Systems & Solutions Corporation, Japan), Kensuke Toyoshima (Nuclear Engineering, Ltd., Japan)

Oct.7 (Mon.)

PSAM17&ASRAM 2024-1192	**Study of Detailing Scenarios Leading directly to Core Damage in Seismic PRA(2) Method for Detailing Scenarios Utilizing Expert Judgement** Yuki Nakano (Mitsubishi Heavy Industries, Ltd., Japan), Shuhei Matsunaka (Tepco Systems Corporation, Japan), Bumpei Fujioka (Hitachi-GE Nuclear Energy, Ltd., Japan), Takashi Kato (TOSHIBA Energy Systems & Solutions Corporation, Japan), Kensuke Toyoshima (Nuclear Engineering, Ltd., Japan), Takahiro Watanabe (Tokyo Electric Power Company Holdings, Inc., Japan), Kenichiro Ikuno (The Kansai Electric Power Co., Inc., Japan)

Exhibition Hall 3

Student Poster 1

17:40 - 18:40

Daily Program

Exhibition Hall 2

Keynote Lecture 1

08:30 - 09:15

Chair:	**Man Cheol Kim** (Chung-ang University, Korea)
Co-Chair:	**Takashi Takata** (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-KL1	**On Becoming Risk-Informed: Lessons Learned from the Past, Present, and (Hopeful) Future of Risk-Informed Applications** Fernando Ferrante (Electric Power Research Institute, United States)

Keynote Lecture 3

09:15 - 10:00

Chair:	**Takashi Takata** (The University of Tokyo, Japan)
Co-Chair:	**Man Cheol Kim** (Chung-ang University, Korea)
PSAM17&ASRAM 2024-KL3	**AI in Nuclear Safety: Lessons from the Past, Insights for the Future** Joon-Eon Yang (Korea Atomic Energy Research Institute, Korea)

Oct.8 (Tue.)

Exhibition Hall 2

Risk Informed Applications 3

13:00 - 15:00

Chair:	**Stefan Authén** (Risk Pilot AB, Sweden)
Co-Chair:	**Filip Van Opstal** (Tractebel ENGIE, Belgium)
PSAM17&ASRAM 2024-1143	**EURATOM Project BESEP - Deliverable 4.3 Evaluation of balance in verification efforts of safety margins between different external hazards** Stefan Authén, Carl Sunde, Elias Bradenmark (Risk Pilot AB, Sweden)
PSAM17&ASRAM 2024-1144	**Risk-Informed Methodology for decision-making on Technical Specifications Allowed Outage Times** Stefan Authén, Erik Cederhorn (Risk Pilot AB, Finland)
PSAM17&ASRAM 2024-1148	**Risk-Informed PSA Applications within the Belgian Nuclear Context – Findings and Insights** Filip Van Opstal, Federico Agosti (Tractebel ENGIE, Belgium)
PSAM17&ASRAM 2024-1218	**Comparison and Examples of Risk-informed Safety Classification in Different Countries** Juho Helander (Jensen Hughes, Finland)

Daily Program

Exhibition Hall 2

Internal Hazards PSA/PRA 1

15:20 - 17:50

Chair:	**Marina L Roewekamp** (Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH, Germany)
Co-Chair:	**Tsuyoshi Uchida** (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1042	**Fire PRA FOR A MODEL PLANT AT NRRC** Tsuyoshi Uchida, Koji Shirai, Motomu Suzuki, Kohei Nonose, Junghoon Ji (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1179	**Development of a Fault Tree for Fire Protection Systems in Nuclear Power Plants** Kyungho Jin, Yong Hun Jung, Dae Il Kang (Korea Atomic Energy Research Institute, Korea)
PSAM17&ASRAM 2024-1182	**Case Study about Operator Manual Action Quantification for Fire PSA** Sun Yeong Choi, Dae Il Kang, Yong Hun Jung (Korea Atomic Energy Reserch Institute, Korea)
PSAM17&ASRAM 2024-1276	**The OECD/NEA Fire Incidents Records Exchange Database – An Overview on Recent PSA-Related Applications** Marina L Roewekamp (Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH, Germany), Markus Beilmann (OECD Nuclear Energy Agency, France), Laima Kuriene (De Autoriteit Nucleaire Veiligheid en Stralingsbescherming , Netherlands), Andreas Werner (Safety Assessment Consulting, Germany), Eunate Armañanzas Albaizar (Consejo de Seguridad Nuclear , Spain), Hossam Shalabi (Canadian Nuclear Safety Commission , Canada), Frantisek Stvan (UJV Rez, Czech Republic), Jan Soedingrekso (Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH, Germany)

Oct.8 (Tue.)

Exhibition Hall 1-A

Risk Assessment Methods 3

13:00 - 15:00

Chair:	**Nathan Siu** (Nuclear Waste Technical Review Board, United States)
Co-Chair:	**Takafumi Narukawa** (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1067	**Tianwan Nuclear Power Plant Units 1-4 Configuration Risk Management Application Practice** Pengfei Zhao (CNNC Jiangsu Nuclear Power Corporation, China)
PSAM17&ASRAM 2024-1167	**Overview of Level 1 PRA (Shutdown State) for Safety Improvement Assessment on Sendai Nuclear Power Station** Hidekazu Suwa, Masaharu Inoue, Maya Nakabayashi, Hiroyuki Nakaya, Norichika Terao, Seishirou Gouhara, Daisuke Konishi (NISHIMU ELECTRONICS INDUSTRIES CO., LTD., Japan), Mitsuharu Sakai, Yuusuke Terasaki, Daigo Hiratsuka, Kenji Shuto (KYUSHU ELECTRIC POWER CO., INC., Japan)
PSAM17&ASRAM 2024-1196	**Risk Information Utilization Initiatives of Ikata Power Plant Unit-3** Satoshi Niida, Nobuyuki Aono (Shikoku Electric Power CO.,INC., Japan)
PSAM17&ASRAM 2024-1402	**Probabilistic Validation Methodology for Probabilistic Risk Assessment: Overview, Status, and Future Research Directions** Ha Bui, Hammad Khalid, Tatsuya Sakurahara, Seyed Reihani, Zahra Mohaghegh (University of Illinois at Urbana-Champaign, United States)

Daily Program

Exhibition Hall 1-A

Risk Assessment Methods 4

15:20 - 17:50

Chair:	**Ola Bäckström** (RiskSpectrum AB, Germany)
Co-Chair:	**Jason Reinhardt** (Sandia, United States)
PSAM17&ASRAM 2024-1365	**Risk analysis of electrolytic water hydrogen production and ammonia synthesis process based on STAMP—STPA model** Xuan Zhang (China University of Petroleum,(Beijing), China), Hao Liu (China University of Petroleum(Beijing), China), Ziwen Zhu (East China Engineering Science and Technology Co.,Ltd. Hefei, China, China), Yao Liu, Qingqing Xu, Yi Shuai (China University of Petroleum(Beijing), China), Xiaojing Zeng, Yu Li (No. 5 Oil Production Plant, Qinghai Oilfield Company, PetroChina, China)
SAM17&ASRAM2 024-1366	**Is Model-Based Dependability with Knowledge Bases a Tool for the Future?** Ola Bäckström, Pavel Krcal (RiskSpectrum AB, Germany)
PSAM17&ASRAM 2024-1152	**Integration of Commonalities in the Paradigm of Model-Based Safety Assessment in Aerospace** Isabella Lanzani (Politecnico di Milano, Italy), Luca Uliano (Leonardo S.p.a., Italy), Riccardo Scattolini (Politecnico di Milano, Italy)
PSAM17&ASRAM 2024-1336	**Implementation of a Holistic Risk Framework for Critical Infrastructure** Merideth Secor, Derek Koolman, Robert Greer (Cybersecurity and Infrastructure Security Agency , United States), Jason Reinhardt (Sandia National Laboratories, United States), Samrat Chatterjee (Pacific Northwest National Lab, United States), Kathleen Hill, Eric Watkins (Systems Planning and Analysis, United States)

Oct.8 (Tue.)

Exhibition Hall 1-B

Keynote Lecture 2

08:30 - 09:15

Chair:	**Koichi Ohno** (National Institute for Environmental Studies, Japan)
Co-Chair:	**Ronald Laurids Boring** (Idaho National Laboratory, United States)
PSAM17&ASRAM 2024-KL2	**The Role of Risk Communication in Risk Governance** Yoshihito Takeda (Hokkaido University, Japan)

Keynote Lecture 4

09:15 - 10:00

Chair:	**Ronald Laurids Boring** (Idaho National Laboratory, United States)
Co-Chair:	**Koichi Ohno** (National Institute for Environmental Studies, Japan)
PSAM17&ASRAM 2024-KL4	**Engaging Communities in Measuring and Assessing Individual Radiation Exposure: Insights from Post-Fukushima Daiichi Nuclear Disaster** Wataru Naito (National Institute of Advanced Industrial Science and Technology , Japan)

Daily Program

Exhibition Hall 1-B

Human Factors and Human Reliability 3

13:00 - 15:00

Chair:	**Sunghyon Jang** (Hokkaido University, Japan)
Co-Chair:	**Awwal Arigi** (Institute for energy technology, Norway)
PSAM17&ASRAM 2024-1106	**Adaptive Automation in Control Rooms: Discussing safety challenges in computerized procedures** Alexandra Fernandes, Rossella Bisio, Andreas Bye (Institute for Energy Technology, Norway)
PSAM17&ASRAM 2024-1189	**Development of Human Error Probability Evaluation Model: Direction and Report Between Emergency Operations Facility and External Locations** Daisuke Takeda, Yukihiro Kirimoto, Kenichi Hayase, Kohei Nonose (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1253	**Evaluation of human error probability for cognitive and diagnosis task considering environmental influence under a severe accident condition in npp** Sunghyon Jang, Kotaro Miwa (Hokkaido University, Japan), Natsuki Shiraishi, Shuhei Matsunaka (TEPCO Systems Corporation, Japan)

Oct.8 (Tue.)

Exhibition Hall 1-B

Human Factors and Human Reliability 4

15:20 - 17:50

Chair:	**Yung Hsien James Chang** (US Nuclear Regulatory Commission, United States)
Co-Chair:	**Ayako Hirose** (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1028	**Models and Knowhow for Human Reliability Analysis on Internal Flooding Termination in Internal Flooding Event** Kohei Nonose, Yukihiro Kirimoto, Daisuke Takeda (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1169	**Human Performance to a Fire in the Main Control Room of Nuclear Power Plants Leading to Loss of Habitability: Using a Virtual Environment** Ayako Hirose, Daisuke Takeda, Kohei Nonose, Koji Tasaka (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1154	**Human errors and influencing factors in digital control rooms: a review and some suggestions** Tingting Cheng, Marilia Ramos, Ali Mosleh (University of California Los Angeles, United States)
PSAM17&ASRAM 2024-1243	**Development of a spatiotemporal Integrated Human Reliability Analysis (I-HRA) method** Mohammad Albati, Zahra Mohaghegh, Ha Bui, Seyed Reihani (University of Illinois Urbana-Champaign, United States)

Meeting Room 1

AI, Machine Learning 3

13:00 - 15:00

Chair:	**Hui Sophie Wang** (Northeastern University, United States)
Co-Chair:	**July Bias Macedo** (Universidade Federal de Pernambuco, Brazil)
PSAM17&ASRAM 2024-1150	**Quantum Computing for Predicting Environmental Impacts: A Focus on Hydrogen Safety in Industry** July Bias Macedo, Plinio Ramos, Caio Souto Maior, Marcio Moura, Isis Lins (Universidade Federal de Pernambuco, Brazil)
PSAM17&ASRAM 2024-1149	**Enhancing Preventive Measures in Hydrogen Industries: Root Cause Identification Using NLP Techniques** Plinio Ramos, July Bias Macedo, Caio Souto Maior, Marcio Moura, Isis Lins (Universidade Federal de Pernambuco, Brazil)
PSAM17&ASRAM 2024-1164	**A Machine Learning Approach for Predicting Hydrogen Embrittlement in Storage and Transportation Steels** Sandrely Pereira Silva, Caio Souto Maior, Isis Didier Lins, Márcio José Chagas Moura (FEDERAL UNIVERSITY OF PERNAMBUCO, Brazil)
PSAM17&ASRAM 2024-1109	**Data-Driven Bayesian Network Models of Hurricane Evacuation Decision Making** Hui Sophie Wang (Northeastern University, United States), Nutchanon Yongsatianchot (Thammasat University, Thailand), Stacy Marsella (Northeastern University, United States)

Meeting Room 1

Reliability Analysis 1

15:20 - 17:50

Chair:	**Robert Walker Youngblood** (Idaho National Laboratory, United States)
Co-Chair:	**Philipp Heß** (University of Wuppertal, Germany)
PSAM17&ASRAM 2024-1001	**Accelerated Tests as Hypothesis Tests for Reliability using the Probability of Test Success** Alexander Grundler (Robert Bosch GmbH, Germany), Martin Dazer (Institute of Machine Components, University of Stuttgart, Germany)
PSAM17&ASRAM 2024-1092	**Systematic Approach to Reliability and Safety Assessment and Enhancement in Design and Operation of Safe Adaptive Load-Bearing Structures** Dshamil Daniel Efinger, Martin Dazer (Institute of Machine Components, University of Stuttgart, Germany)
PSAM17&ASRAM 2024-1156	**Long-term reliability of dental implants: Development of a multivariate test rig for accelerated testing under realistic conditions** Philipp Heß, Marcel Schmidt, Stefan Bracke (University of Wuppertal, Germany)
PSAM17&ASRAM 2024-1341	**Relating Measured Component Damage to Assessed Component Reliability in Reliability Integrity Management** Robert Walker Youngblood (Idaho National Laboratory, United States)

Meeting Room 2

Accident Analysis and Modeling 3

13:00 - 15:00

Chair:	**Jakub Montewka** (Gdansk University of Technology, Poland)
Co-Chair:	**Yuichi Onoda** (Japan Atomic Energy Agency, Japan)
PSAM17&ASRAM 2024-1359	**EFFECTIVENESS EVALUATION OF THE MEASURES FOR IMPROVING RESILIENCE AT ULTRA-HIGH TEMPERATURES** Yuichi Onoda, Hiroyuki Nishino, Kenichi Kurisaka, Hidemasa Yamano (Japan Atomic Energy Agency, Japan)
PSAM17&ASRAM 2024-1349	**Application of Quantitative Obstacle Zone by Target (OZT) Method to Situation Awareness Assessment for Ship Collision Accident** Rikako Asaumi, Rina Miyake, Hiroko Itoh (National Maritime Research Institute, Japan)
PSAM17&ASRAM 2024-1362	**Research on emergency evacuation under gas leakage based on social force model** Haiyang Yu, Xuan Zhang (China University of Petroleum (Beijing), China), Zhengping Zhang (Petrochina Yumen Oilfield Company, China), Qingqing Xu (China University of Petroleum, Beijing, China), Yin Zhong (PetroChina Tuha Oilfield Company, China), Lumeng Jiang, Shengyang Yu (China National Petroleum Corporation, China)

Meeting Room 2

Accident Analysis and Modeling 4

15:20 - 17:50

Chair:	**Naoki Hirokawa** (Hitachi-GE Nuclear Energy, Japan)
Co-Chair:	**Xingsheng Xu** (Tsinghua University, China)
PSAM17&ASRAM 2024-1114	**Three-Dimensional Thermal Hydraulic Transient Analysis for Pump Failure in Innovative Small Sodium-Cooled Fast Reactor** Keita Endo, Takashi Abe, Kazuhiro Fujimata, Hirotaka Nakahara (Hitachi-GE Nuclear Energy, Ltd, Japan)
PSAM17&ASRAM 2024-1235	**Intelligent Alarm Analysis of Pressurized Water Reactor Nuclear Power Plant Based on Multi - level Flow Model** Chenxi Zhang, Ming Yang, Sijuan Chen (Shenzhen University, China), Jianhua Chen, Faqiang Qian (Shenzhen University, China, China)
PSAM17&ASRAM 2024-1303	**Study on the influence of ambient temperature and RPV temperature on operation performance of HTR-PM reactor cavity cooling system** Xinsheng Xu (INET, China), Yiyang Ye (CAEP Software Center for High Performance Numerical Simulation, Beijing, China, China), Yanhua Zheng (INET, China)
PSAM17&ASRAM 2024-1325	**Thermal-Hydraulic Response Research of Containment Vessel during a Typical LOCA Accident** Yan Wang (Institute of Nuclear and New Energy Technology, Tsinghua University, China), Yifan Meng (Institute of Nuclear and New Energy Technology，Tsinghua University, China), Zixuan Wang (Institute of Nuclear and New Energy Technology, Tsinghua University, China)
PSAM17&ASRAM 2024-1326	**Influence and Propagation of Axial Power Distribution Varying on Thermal-Hydraulic Characteristics in a Rod Bundle** Zixuan Wang, Yifan Meng, Yan Wang (Tsinghua University, China)

Daily Program

Meeting Room 3(A,B)

Meeting Room 3(A,B)

Physical/Cyber Security

Risk and Hazard Analyses 3

13:00 - 15:00

15:20 - 17:50

Chair:	**David Blanchard** (Applied Reliability Engineering, Inc., United States)
Co-Chair:	**Seung Geun Kim** (Korea Atomic Energy Research Institute, Korea)
PSAM17&ASRAM 2024-1180	**Assessing Cybersecurity Risks in AI-Based Nuclear Power Plant Operator Support System: A Study on Potential Attacks and Human-Machine Interaction Implications** Young Ho Chae, Seung Geun Kim (Korea Atomic Energy Research Institute, Korea)
PSAM17&ASRAM 2024-1238	**Multiattribute Risk Analysis Techniques in a Cyber Security Application** David Blanchard (Applied Reliability Engineering, Inc., United States), Robert W. Youngblood (Idaho National Laboratory, United States), Mihai A. Diaconeasa (North Carolina State University, United States)
SAM17&ASRAM2 024-1245	**Exploring Dynamics of Response to Simulated School Shootings Based on NPC Influence and Gunman's Proximity** Kevin Kapadia, Katie Byrd (University of Southern California, United States), Nutchanon Yongsatianchot (Thammasat University, Thailand), Stacy Marsella (Northeastern University , United States), Richard John (University of Southern California, United States)
PSAM17&ASRAM 2024-1314	**Towards a global conflict heat map informed by climate change stressors** Pragathi Jha (Purdue University, United States), Jason Reinhardt (Sandia National Lab, Purdue University, United States)

Chair:	**Dong-San Kim** (KAERI, Korea)
Co-Chair:	**Yasuo Hattori** (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1188	**Tornado PRA methodology with probabilistic tornado hazard assessment** Yasuo Hattori, Takahiro Murakami, Kota Fujiwara, Daisuke Nohara, Kosuke Namba, Yuzuru Eguchi (Central Research Institute of Electric Power Industry, Japan), Shunichi Imai (Tokyo Electric Power Company Holdings, Inc., Japan), Takeshi Kunimasa (Kansai Electric Power Co., Inc., Japan)
PSAM17&ASRAM 2024-1095	**Uncertainty factors in wind hazard analysis for tornado probabilistic risk assessment** Kota Fujiwara, Daisuke Nohara, Yuzuru Eguchi, Hiromaru Hirakuchi, Yasuo Hattori (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1260	**Study of risk assessment methodology for tornado** Mikihiro Kato, Takamasa Kurokawa (Nuclear Engineering, Ltd., Japan), Ryohei Shioya, Shinsuke Nakano (Mitsubishi Heavy Industries, Ltd., Japan), Wataru Oshima, Takeshi Numata (The Kansai Electric Power Co., Inc., Japan), Takahiro Murakami, Yasuo Hattori (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1103	**Efforts to Enhance the PRA Model at Tokai No.2 Power Station** Yuto Kumagai, Jun Ueno (Nuclear Engineering and Services Company, Japan), Masaru Yamanaka, Kazuhiro Sugihara, Takuma Takahashi (The Japan Atomic Power Company, Japan)

Daily Program

Meeting Room 4(A,B)

External Hazard PSA/PRA 3

13:00 - 15:00

Chair:	**Seung Jun Lee** (UNIST, Korea)
Co-Chair:	**Hiroyuki Yamada** (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1128	**Upgrading Tsunami PRA for Onagawa Nuclear Power Plant Unit 2 (1) Probabilistic Tsunami Hazard Assessment (PTHA)** Tomohiro Yokoyama, Shuhei Nakagawa, Takeshi Kanno (Tohoku Electic Power Co., Inc, Japan)
PSAM17&ASRAM 2024-1204	**Upgrading Tsunami PRA for Onagawa Nuclear Power Plant Unit 2** Atsushi Nishikimi (Tohoku Electric Power Co., Inc., Japan), Hiroyuki Takahashi, Tsunehito Ootomo (Tohoku Electric Power Co, Japan), Daisuke Sato (Tohoku Electric Power Co., Inc., Japan), Chikako Ogura (Toshiba Energy Systems & Solutions Corporation, Japan), Yukihiro Kirimoto, Naoto Kihara (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1190	**Proposal of a method for risk quantification under the multi hazard of the earthquake and tsunami for nuclear power plant** Hiroyuki Yamada (Central Research Institute of Electric Power Industry, Japan), Ryusuke Haraguchi (Mitsubishi Heavy Industries, LTD., Japan), Yoshinori Mihara (Kajima Corporation, Japan), Hiromichi Miura, Eishiro Higo (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1053	**Multi Hazard Probabilistic Safety Assessment Framework** Hyungjun Kim, Seung Jun Lee (Ulsan National Institute of Science & Technology, Korea)

Oct.8 (Tue.)

Meeting Room 4(A,B)

External Hazard PSA/PRA 4

15:20 - 17:50

Chair:	**Tamas Siklossy** (Nuclear Safety Reserch Institute Ltd., Hungary)
Co-Chair:	**Eishiro Higo** (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1159	**Proposal of a method for developing a plant response model considering the effects of an impact with a time lag during the progress of an accident** Eishiro Higo, Tsuyoshi Uchida (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1200	**PSA for Freezing of River Danube as Ultimate Heat Sink of NPP Paks, Hungary** Tamas Siklossy, Attila Bareith, Bence Burjan (NUBIKI Nuclear Safety Reserch Institute Ltd., Hungary)
PSAM17&ASRAM 2024-1288	**The Impact of Climate Change on Swedish Nuclear Facilities - a Litterature Review** Erik Sparre, Per Nystrom, Emma Ulberstad (Risk Pilot, Sweden)
PSAM17&ASRAM 2024-1407	**Improved modelling of external hazards at Forsmark NPP** Julia Ljungbjörk, Simon Sjögren, Anders Karlsson (Forsmark NPP, Sweden), Leo Backhouse Lötman (Risk Pilot AB, Sweden)

Exhibition Hall 3

Student Poster 2

10:20 - 11:20

Daily Program

Exhibition Hall 2

Keynote Lecture 5

08:30 - 09:15

Chair:	**Hitoshi Muta** (Tokyo City University, Japan)
Co-Chair:	**Johan Sorman** (RiskSpectrum AB, Sweden)
PSAM17&ASRAM 2024-KL5	**Overview of Onagawa Nuclear Power Station's Response to the Great East Japan Earthquake and Implementation of Safety Improvement Measures** Tetsuya Matsunaga (Tohoku Electric Power Co., Inc., Japan)

Keynote Lecture 6

09:15 - 10:00

Chair:	**Johan Sorman** (RiskSpectrum AB, Sweden)
Co-Chair:	**Hitoshi Muta** (Tokyo City University, Japan)
PSAM17&ASRAM 2024-KL6	**Current Status of Fukushima Daiichi Decommissioning: Issues and Perspectives** Moriyasu Abe (Tokyo Electric Power Company Holdings, Inc., Japan)

Oct.9 (Wed.)

Exhibition Hall 2

Risk Informed Applications 4

10:20 - 11:50

Chair:	**Naoki Hirokawa** (Hitachi-GE Nuclear Energy, Japan)
Co-Chair:	**Xuhong He** (RiskSpectrum AB, Sweden)
PSAM17&ASRAM 2024-1333	**Use of Probabilistic Safety Assessment for Configuration Risk Management in a Nuclear Power Plant** Jiaqing Chen (CNNP Nuclear Power Operations Management Co., Ltd, China), Xuhong He (RiskSpectrum AB, Sweden), Yong Cao (CNNP Nuclear Power Operations Management Co., Ltd, China), Yi Zou, Johan Sörman (RiskSpectrum AB, Sweden)
PSAM17&ASRAM 2024-1357	**Enhanced safety of Highly Innovative ABWR** Takao Kondo, Hiromasa Chitose, Naoki Hirokawa, Tomoharu Hashimoto, Tomoaki Okada (Hitachi-GE Nuclear Energy, Ltd., Japan)
PSAM17&ASRAM 2024-1317	**Preliminary Exploration of Exemption Methods for Single Fault Criteria in Nuclear Power Plants** Jin An, Jian Yang, Wei Deng (China Nuclear Power Engineering Co., LTD, China)

Daily Program

Exhibition Hall 2

Topical Session 1

13:00 - 15:00

Chair:	**Ronald Laurids Boring** (idaho National Laboratory, United States)
PSAM17&ASRAM 2024-TS1	**Research to Sustain the Existing Fleet of Operating Nuclear Power Plants** Ronald Laurids Boring, Diego Mandelli, Shawn ST. Germain, Svetlana Lawrence (Idaho National Laboratory, United States), Zahra Mohaghegh (University of Illinois at Urbana-Champaign, United States)

Oct.9 (Wed.)

Exhibition Hall 2

Risk-Informed Performance-Based Regulation 1

15:20 - 17:50

Chair:	**Kevin Coyne** (U.S. Nuclear Regulatory Commission, United States)
Co-Chair:	**Kenta Murakami** (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1065	**Risk-Informed Licensing Requirements for Manufacturing and Procurement of Components at a new NPP in Hungary** Tamas Siklossy, Attila Bareith, Zoltan Karsa (NUBIKI Nuclear Safety Reserch Institute Ltd., Hungary), Levente Kovacs, Andras Laszlo Szabo (Paks II. Nuclear Power Plant Ltd., Hungary)
PSAM17&ASRAM 2024-1141	**Risk Informing Regulatory Oversight of Nuclear Facilities in Finland** Teemu Tapani Soukki, Ari Julin (Radiation and Nuclear Safety Authority of Finland, Finland)
PSAM17&ASRAM 2024-1401	**Regulatory Role of PSA in Canada and lessons learned from its use in advanced reactor facilities** Hayat Chatri, Michael Xu, Abderrazzaq Bounagui (Canadian Nuclear Safety Commission, Canada)
PSAM17&ASRAM 2024-1307	**An Overview of Current Risk-Informed Decision-Making Research Activities at the US Nuclear Regulatory Commission** Kevin Coyne (U.S. Nuclear Regulatory Commission, United States)
PSAM17&ASRAM 2024-1404	**Insights from 44 yrs of NRC Fire Protection Inspections** Paul Benjamin Boulden (Appendix R Solutions, Inc., United States)

Daily Program

Exhibition Hall 1-A

Consequence Modeling and Management

10:20 - 11:50

Chair:	**Yu Maruyama** (Japan Atomic Energy Agency, Japan)
Co-Chair:	**Sergey Galushin** (Vysus Group, Sweden)
PSAM17&ASRAM 2024-1213	**A benchmark comparison of Level-3 Probabilistic Safety Assessment codes: preliminary results from first calculation rounds** Gilliam Innis Lucien Van Oudenaren (Nuclear Research and Consultancy Group, Netherlands), Jacques B. Grupa (NRG, Netherlands), Sung-yeop Kim (KAERI, Korea), Chihiro Suzuki, Kodai Wadayama (NRA, Japan), Azusa Nagakubo (JAEA, Japan)
PSAM17&ASRAM 2024-1296	**Developing the RASTEP Model: A Methodological Approach and Case Study of the M310 PWR Reactor** Sergey Galushin, Wenjie Qin (Vysus Group, China), Yongyong Yang (China Nuclear Power Operation Technology Corporation, Ltd., China), Anders Olsson (Vysus Group, Sweden)
PSAM17&ASRAM 2024-1297	**Comparative Analysis of Generic RASTEP Models: VVER-1200, Westinghouse 3-Loop PWR** Hafssa Laabadi, Walter Anticona, Timmy Sigfrids, Anders Olsson, Sergey Galushin (Vysus Group, Sweden)

Oct.9 (Wed.)

Exhibition Hall 1-A

Risk Assessment Methods 5

13:00 - 15:00

Chair:	**Koichi Nakamura** (Central Research Institute of Electric Power Industry, Japan)
Co-Chair:	**Guillaume Kioseyian** (IRSN, France)
PSAM17&ASRAM 2024-1009	**(1) Overview of the Extension of the Level 2 PRA Standard to Tsunami Events in Japan** Koichi Nakamura (Central Research Institute of Electric Power Industry, Japan), Ryoichi Hamazaki (Ex-Toshiba Corporation, Japan), Yoshinori Yamakoshi (Mitsubishi Heavy Industries, Ltd., Japan)
PSAM17&ASRAM 2024-1010	**(2) Overview of the Requirements of the Level 2 PRA Standard Extended to Tsunami Events in Japan** Yoshinori Yamakoshi (Mitsubishi Heavy Industries, Ltd., Japan), Shinichi Kotani (Nuclear Engineering, Ltd., Japan), Natsuki Shiraishi (TEPCO Systems Corporation, Japan), Kazunori Hashimoto (Central Research Institute of Electric Power Industry, Japan), Yoshinori Mihara (Kajima Corporation, Japan)
PSAM17&ASRAM 2024-1201	**IRSN level 2 PSA for the French 1300 MW PWRs series: some new features in the updated version** Teddy Fritel, Guillaume Kioseyian, Dominique Corbin, Krystel Dropsy, David Bouhjiti, Nadia Rahni, Emmanuel Raimond, Marine Marcilhac-Fradin (IRSN, France)
PSAM17&ASRAM 2024-1405	**Determination of Recovery Time Distributions for Water Supply Systems for Level 2 PRA** Miika Severi Wallius (Teollisuuden Voima Oyj, Finland)
PSAM17&ASRAM 2024-1404	**Insights from 44 yrs of NRC Fire Protection Inspections** Paul Benjamin Boulden (Appendix R Solutions, Inc., United States)

Exhibition Hall 1-A

Risk Assessment Methods 6

15:20 - 17:50

Chair:	**Yasuki Ohtori** (Tokyo City University, Japan)
Co-Chair:	**Xuhong He** (RiskSpectrum AB, Sweden)
PSAM17&ASRAM 2024-1088	**Seismic risk study of typical BWR plant considering inter-period correlation among SSCs** Ryui Tomita, Hitoshi Muta, Yasuki Ohtori (tokyo city university, Japan)
PSAM17&ASRAM 2024-1132	**Application of inter-period correlation to the seismic PRA model of a nuclear power plant considering the detailed location of the structures and components providing the safety function.** Shion Uno, Hitoshi Muta, Yasuki Ohtori, Izumi Nakamura (Tokyo city university, Japan)
PSAM17&ASRAM 2024-1319	**Combination Importance Measure Considering Seismic Correlation** Ryoto Kobayashi, Yasuki Ohtori, Hitoshi Muta (Tokyo City University, Japan), Masato Nakajima (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1369	**Importance Assessment in PSA with Advanced Calculation Approaches: RiskSpectrum Perspective** Ola Bäckström, Pavel Krcal, Pengbo Wang (RiskSpectrum AB, Sweden)

Exhibition Hall 1-B

Environmental Risk Assessment 1

10:20 - 11:50

Chair:	**Xiaole Zhang** (Tsinghua University, China)
Co-Chair:	**Kazumasa Shimada** (JANUS, Japan)
PSAM17&ASRAM 2024-1082	**Innovative Stacking Method for Enhanced Data Fusion in Pollutant Population Risk Evaluation** Yudie Jianyao, Xiaole Zhang, Hongyong Yuan, Guofeng Su (Tsinghua University, China)
PSAM17&ASRAM 2024-1129	**Resident risk assessment in nuclear power plant accident integrating on-site and off-site information** Fumie Sebe, Kaoru Matsushita, Mika Tahara, Nobuhisa Takezawa, Hideki Horie (Toshiba Energy Systems & Solutions Corporation, Japan)
PSAM17&ASRAM 2024-1222	**PRA based radiation dose estimates around Loviisa NPP in case of a severe reactor accident** Benjamin Grigoriadis, Taisto Laato (Fortum, Finland)

Daily Program

Oct.9 (Wed.)

Exhibition Hall 1-B

Exhibition Hall 1-B

Human Factors and Human Reliability 5

Human Factors and Human Reliability 6

13:00 - 15:00

15:20 - 17:50

Chair:	**Ali Mosleh** (University of California , United States)
Co-Chair:	**Naoto Kitahara** (Toshiba Energy Systems and Solutions Corporation, Japan)
PSAM17&ASRAM 2024-1066	**Causal Pathways Leading to Decision and Action Human Failure Events: Structures and Validation** Camille S Levine, Ahmad Al-Douri, Katrina M Groth (University of Maryland, College Park, United States)
PSAM17&ASRAM 2024-1091	**Development and Implementation of Seismic Human Reliability Analysis in Japan** Chikako Ogura, Yuji Komori, Naoto Kitahara (Toshiba Energy Systems & Solutios Corporation, Japan), Tsunehito Otomo (Tohoku Electric Power Co, Japan), Andrea Maioli (Westinghouse Electric Company LLC, United States)
PSAM17&ASRAM 2024-1395	**The Phoenix HRA Approach: Method and Software Planform for Nuclear Power Plant PRA Application** Ali Mosleh (University of California , United States), Marilia Ramos (Universty of California, United States)

Chair:	**Futoshi Tanaka** (Mitsubishi Heavy Industries, Ltd., Japan)
Co-Chair:	**Ronald Laurids Boring** (Idaho National Laboratory, United States)
PSAM17&ASRAM 2024-1018	**Cultural profiles comparison of operators and users in TRR-1/M1** Weerawat Pornroongruengchok (Thailand Institute of Nuclear Technology, Thailand), Wasin Vechgama (Korea Atomic Energy Research Institute, Korea)
PSAM17&ASRAM 2024-1269	**Nuclear power plant operator performance measurement system for human reliability analysis** Futoshi Tanaka (Mitsubishi Heavy Industries, Ltd., Japan), Kenji Mashio (Mitsubishi Heavy Industries LTD, Japan)
PSAM17&ASRAM 2024-1334	**Experience-Performance Impact Curve (EPIC): A Conceptual Approach to Account for the Moderating Effect of Operator Experience on other Performance Shaping Factors in Human Reliability Modeling** Olugbenga Gideon (University of Idaho, United States), Ronald Laurids Boring (Idaho National Laboratory, United States)
PSAM17&ASRAM 2024-1397	**Research and Application of HRA Dependency Analysis in Nuclear Power Plant** Kunxiu Liu, Wenjing Li, Jiangbin Bai, Shiguang Deng (China Nuclear Power Engineering Co., Ltd., China)

Daily Program

Meeting Room 1

AI, Machine Learning 4

10:20 - 11:50

Chair:	**Hyeonmin Kim** (Korea Atomic Energy Research Institute, Korea)
Co-Chair:	**Yasuki Ohtori** (Tokyo City University, Japan)
PSAM17&ASRAM 2024-1247	**Bearings' Vibration Fault Detection via Physics-Informed Deep Learning** Leonardo Streck Raupp, Isis Didier Lins, Caio Bezerra Souto Maior (Federal University of Pernambuco, Brazil), Thiago Silva Cavalcanti (University of Pernambuco, Brazil), Márcio José Das Chagas Moura (Federal University of Pernambuco, Brazil), Gustavo De Novaes Pires Leite (Federal Insitute of Pernambuco, Brazil)
PSAM17&ASRAM 2024-1342	**Development of meta-modeling considering dynamic features of multi-unit accidents** Hyeonmin Kim, Sang Hoon Han, Dong-San Kim (Korea Atomic Energy Research Institute, Korea)

Oct.9 (Wed.)

Meeting Room 1

AI, Machine Learning 5

13:00 - 15:00

Chair:	**Hiroshi Ujita** (AdvanceSoft Corporation, Japan)
Co-Chair:	**Diego Mandelli** (Idaho National Laboratory, United States)
PSAM17&ASRAM 2024-1207	**Development of Probabilistic Risk Assessment Methodology Using Artificial Intelligence Technology 3. Automatic Fault Tree Creation Tools for Failure Mode Level Fault Tree** Satoshi Futagami, Yuki Kondo, Hidemasa Yamano, Kenichi Kurisaka (Japan Atomic Energy Agency, Japan)
PSAM17&ASRAM 2024-1116	**Development of Probabilistic Risk Assessment Methodology Using Artificial Intelligence Technology 4. Automatic Fault Detection Method for Building Reliability Database- Analysis and Classification Method for Incidents with Complex Causal Networks** Hiroshi Ujita, Tatsuya Morimoto (AdvanceSoft Corporation, Japan), Satoshi Futagami, Hidemasa Yamano, Kenichi Kurisaka (Japan Atomic Energy Agency, Japan)
PSAM17&ASRAM 2024-1232	**Advance Sensor Signal Validation using Attention-based Deep Learning Models** Chau Thi Thuy Tran, Mario Hoffmann (Institution for Energy, Norway)
PSAM17&ASRAM 2024-1383	**From data to knowledge: a graph-based reliability approach to assess system health** Diego Mandelli, Congjian Wang, Chaitee Milind Godbole, Vivek Agarwal (Idaho National Laboratory, United States)

Meeting Room 1

Mathematical Method Reliability

15:20 - 17:50

Chair:	**Takeshi Matsuoka** (Utsunomiya University & National Maritime Research Institute, Japan)
Co-Chair:	**Takashi Takata** (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1047	**Availability Analysis of a Loop Structured System - Application of the GO-FLOW methodology to a distributed energy system consisting of a solar panel, a rechargeable battery and a fuel cell -** Takeshi Matsuoka (Utsunomiya University & National Maritime Research Institute, Japan)
PSAM17&ASRAM 2024-1051	**Characteristics of extrapolation-optimized response surface designs for multivariate reliability modelling and lifetime prediction** Marco Arndt, Martin Dazer (University of Stuttgart, Germany)
PSAM17&ASRAM 2024-1172	**Quantum Computation For Minimal Cut Set Identification In Fault Trees** Gabriel San Martin, Enrique Lopez (University of California Los Angeles, United States)
PSAM17&ASRAM 2024-1382	**Exploring Grover-enhanced QAOA for Minimal Cut Set Identification** Gabriel San Martin, Enrique Lopez Droguett (University of California Los Angeles, United States)

Meeting Room 2

Multi-Unit, Multi-Source PSA/PRA 1

10:20 - 11:50

Chair:	**Jun Zhao** (Tsinghua university, China)
Co-Chair:	**Makoto Takahashi** (Tohoku University, Japan)
PSAM17&ASRAM 2024-1050	**Development of a methods for evaluating the frequency of accidents related to multiple storage tanks and multiple events at the Rokkasho Reprocessing Plant** Masahiro Yamamoto, Kazumi Takebe, Takashi Kodama (JAPAN NUCLEAR FUEL LIMITED, Japan), Futoshi Tanaka (Mitsubishi Heavy Industries, Ltd, Japan), Isao Hongo (Mitsubishi Heavy Industries, Ltd., Japan), Asei Kawasaki (MHI NS Engineering Co., Ltd., Japan), Makoto Takahashi (Tohoku University, Japan)
PSAM17&ASRAM 2024-1313	**Development of Computational Model for Multi-Point Environmental Release of Radionuclides** Juryong Park, Siho Jang, Eung Soo Kim (Seoul National University, Korea), Sung-yeop Kim (Korea Atomic Energy Research Institute, Korea)

Meeting Room 2

Multi-Unit, Multi-Source PSA/PRA 2

13:00 - 15:00

Chair:	**Sunghyon Jang** (Hokkaido University, Japan)
Co-Chair:	**Jean Carlo Salazar** (Nuclear Research and Consultancy Group, Netherlands)
PSAM17&ASRAM 2024-1176	**A Hybrid Approach for a Multi-unit Probabilistic Risk Model using the Direct Quantification of a Fault Tree using Monte Carlo Simulation and the minimal cutset method** Shota Soga, Hiromichi Miura, Eishiro Higo (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1178	**Proposal of an evaluation framework for seismic level 1 multi-unit PRA** Hiromichi Miura, Shota Soga, Eishiro Higo (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1327	**PSA Level 1-2-3 uncertainty propagation** Jean Carlo Salazar (Nuclear Research and Consultancy Group, Netherlands), Hans Brinkman (Nuclear Research and Consultancy Group Netherlands, Netherlands)
PSAM17&ASRAM 2024-1363	**Multi-Unit PSA Based on Multi-Unit Sequences** Ola Bäckström, Pavel Krcal (RiskSpectrum AB, Germany), Futoshi Tanaka (Mitsubishi Heavy Industries LTD, Japan), Pengbo Wang (RiskSpectrum AB, Sweden)

Meeting Room 2

Accident Analysis and Modeling 5

15:20 - 17:50

Chair:	**Sergey Galushin** (Vysus Group, Sweden)
Co-Chair:	**Tomohiko Ikegawa** (Hitachi, Ltd., Japan)
PSAM17&ASRAM 2024-1175	**Best Estimate Plus Uncertainty Analysis of Small-Break Loss-of-Coolant Accidents for IRIS** Changzheng Yin (University of Science and Technology of China, China)
PSAM17&ASRAM 2024-1295	**Uncertainty Analysis of Fission Products Release in Filtered Venting Scenarios for Nordic BWRs: Assessing the Effect of Independent Spray System** Sergey Galushin (Vysus Group, Sweden), Govatsa Acharya, Dmitry Grishchenko, Pavel Kudinov (Royal Institute of Technology, Sweden)
PSAM17&ASRAM 2024-1274	**Study on Safety of Advanced Integrated Natural Circulation Reactor of NHR200-II under LOCA Condition** Yan Wang, Zixuan Wang, Yifan Meng (Tsinghua University, China)
PSAM17&ASRAM 2024-1316	**Corium Shield and Pedestal Flooding Severe Accident Analysis for Small Modular Reactor BWRX-300** Nassim Florian Sahboun, Takayuki Someya, Tomohiko Ikegawa (Hitachi-GE Nuclear Energy,LtD., Japan), Home Deepayan (GE Hitachi Nuclear Energy-GE Vernova, Canada)

Daily Program

Meeting Room 3(A,B)

Digital Transformation

10:20 - 11:50

Chair:	**Mohamed Hibti** (Electricité de France, France)
Co-Chair:	**Hideo Soneda** (Hitachi-GE Nuclear Energy, Japan)
PSAM17&ASRAM 2024-1113	**Use of 360-degree Camera for PRA Plant Walkdown** Bumpei Fujioka, Naoki Hirokawa (Hitachi-GE Nuclear energy, Japan), Kazuki Morishima, Yohhei Sugimoto (Hitachi, Ltd., Japan), Kenichi Ihara, Kenichi Kanda, Kazunobu Noriyasu (The Chugoku Electric Power Company, Incorporated, Japan)
PSAM17&ASRAM 2024-1212	**Towards intelligent methodologies for uncertainty quantification in civil nuclear energy safety** Yu Chen, Edoardo Patelli (University of Strathclyde, United Kingdom)
PSAM17&ASRAM 2024-1398	**Enhancing PSA Activities with Andromeda: A Decade of Evolution, Challenges, and Training Insights** Mohamed Hibti (Electricité de France, France), Sebastien Vermuse (Edvance, France), Vincent Rolland (EDF DIPDE, France), Picoco Claudia, Romain Roy (EDF R&D, France), Stéphane Puyaubreau (Edvance, France), François Sauvaget (EDF R&D, France), Benoit Alessis (EDF DT, France), François Cherpin (EDF DIPDE, France)

Oct.9 (Wed.)

Meeting Room 3(A,B)

Risk and Hazard Analyses 4

13:00 - 15:00

Chair:	**Byunghyun Choi** (Japan Atomic Energy Agency, Japan)
Co-Chair:	**Zhixin Xu** (China General Nuclear Power Group, Clean Energy Technology(Shanghai) Co.,Ltd, China)
PSAM17&ASRAM 2024-1052	**A Methodology Based on Flooding Subsection to Analyze the Safety of Costal Nuclear Power Plant Against External Flooding** Zhixin Xu (China General Nuclear Power Group, Clean Energy Technology(Shanghai) Co.,Ltd, China)
PSAM17&ASRAM 2024-1166	**Basic study on seismicity smoothing based on quantification of uncertainty due to lack of knowledge** Minoru Matsubara (TAISEI　CORPORATION, Japan)
PSAM17&ASRAM 2024-1165	**Development of a probabilistic risk assessment method for combined hazards : A classification and modeling framework for multihazard events** Byunghyun Choi, Akemi Nishida (Japan Atomic Energy Agency, Japan), Hideaki Tsutsumi (Total Support System Corporation, Japan), Tsuyoshi Takada (Japan Atomic Energy Agency, Japan)
PSAM17&ASRAM 2024-1289	**Recent PSA developments and use of PSA applications in Belgium** Etienne Claus (Bel V, Belgium)

Meeting Room 3(A,B)

Internal Hazards PSA/PRA 2

15:20 - 17:50

Chair:	**Koji Shirai** (Central Research Institute of Electric Power Industry, Japan)
Co-Chair:	**Albena Tzenova Stoyanova** (KKL, Switzerland)
PSAM17&ASRAM 2024-1044	**Simplified method to predict time to fire-induced electrical failure of cables in two-layer zone model BRI2-CRIEPI** Koji Tasaka (Central Research Institute of Electric Power Industry, Japan), Toshiko Udagawa (WDB Co., Ltd., Japan), Koji Shirai, Junghoon Ji (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1409	**Coupling Simulation Driven Fire Risk Analysis in 3D (FRI3D) with Probabilistic Safety Analysis using Risk Spectrum PSA** Ramprasad Sampath (CENTROID LAB, United States), Steven Prescott (Idaho National Laboratory, United States)
PSAM17&ASRAM 2024-1096	**Approach to & Insights from Detailed Fire Simulation Studies at Leibstadt NPP** Albena Tzenova Stoyanova (KKL, Switzerland), Pavol Zvoncek, Olivier Nusbaumer (Leibstadt Nuclear Power Plant, Switzerland), Devi Kompella, Karthik Ravichandran, Vignesh Anandan (RELSAFE PRA Consulting Private Limited (An Assystem Company), India)
PSAM17&ASRAM 2024-1098	**Evaluation of Fire-Induced Multiple Spurious Operations at Leibstadt NPP** Albena Tzenova Stoyanova (KKL, Switzerland), Pavol Zvoncek, Olivier Nusbaumer (Leibstadt Nuclear Power Plant, Switzerland), Devi Kompella, Karthik Ravichandran, Vignesh Anandan (RELSAFE PRA Consulting Private Limited (An Assystem Company), India)

Meeting Room 4(A,B)

Maintenance Modelling and Optimization 1

10:20 - 11:50

Chair:	**Carroll Trull** (Engineering Planning and Management Inc., United States)
Co-Chair:	**Takashi Takata** (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1406	**Maintenance Decision-Making Optimization for Quality Degrading Production Systems through Deep Reinforcement Learning** Chiye Ma, Wei Wang (City University of Hong Kong, China)
PSAM17&ASRAM 2024-1104	**Automated PSA Platform Conversion** Carroll Trull (Engineering Planning and Management Inc., United States), Yuji Komori, Go Tanaka (Toshiba Energy Systems & Solutions Corporation, Japan)
PSAM17&ASRAM 2024-1173	**Research on acceptable criteria and calculation method of maintenance rule performance index** Gu Xiaohui (CNNP Operation Maintenance Co.,Ltd, China)

Daily Program

Meeting Room 4(A,B)

Dynamic PSA/PRA 1

13:00 - 15:00

Chair:	**Xiaoyu Zheng** (Japan Atomic Energy Agency, Japan)
Co-Chair:	**Tanja Eraerds** (Gesellschaft für Reaktor und Anlagensicherheit, Germany)
PSAM17&ASRAM 2024-1026	**Development of Risk Importance Measures for Dynamic PRA Based on Risk Triplet (1) The Concept and Measures of Risk Importance** Takafumi Narukawa, Takashi Takata (The University of Tokyo, Japan), Xiaoyu Zheng, Hitoshi Tamaki, Yasuteru Shibamoto, Yu Maruyama, Tsuyoshi Takada (Japan Atomic Energy Agency, Japan)
PSAM17&ASRAM 2024-1138	**Development of Risk Importance Measures for Dynamic PRA Based on Risk Triplet (2) Trial Measurement of Risk Importance Through Dynamic Level 2 PRA With RAPID** Xiaoyu Zheng, Hitoshi Tamaki, Yasuteru Sibamoto, Yu Maruyama, Tsuyoshi Takada (Japan Atomic Energy Agency, Japan), Takafumi Narukawa, Takashi Takata (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1074	**Proposal of Uncertainty Analysis Methodology for L1PRA in Accordance with Markov State-transition Model** Masanobu Haruhara, Hitoshi Muta (Tokyo City University, Japan)
PSAM17&ASRAM 2024-1265	**DYNAMIC MODELLING OF A NUCLEAR POWER PLANT INTERNAL FLOODING SCENARIO UNDER SEVERE WEATHER CONDITIONS** Florian Berchtold, Tanja Eraerds (Gesellschaft fuer Anlagen- und Reaktorsicherheit gGmbH, Germany)

Oct.9 (Wed.)

Dynamic PSA/PRA 2

15:20 - 17:50

Chair:	**Christoph Döderlein** (French Alternative Energies and Atomic Energy Commission, France)
Co-Chair:	**Jinkyun Park** (Korea Atomic Energy Research Institute, Korea)
PSAM17&ASRAM 2024-1054	**Identifying the dynamic effect of manual responses on the progression of a steam generator tube rupture accident - A case study** Jinkyun Park, Hyeonmin Kim (Korea Atomic Energy Research Institute, Korea)
PSAM17&ASRAM 2024-1302	**Enhancing Realism in a Spent Fuel Pool PSA: Dynamic Repair Modelling and Realistic Mission Times** Anders Olsson, Frida Olofsson (Vysus sweden AB, Sweden)
PSAM17&ASRAM 2024-1305	**Dynamic reliability and safety analyses for a passive safety system of VVER440 type reactor** Zoltan Kovacs (RELKO spol. s r.o., Slovakia), Pavol Hlavac, Robert Spenlinger (RELKO, Engineering and Consulting Services, Slovakia)
PSAM17&ASRAM 2024-1267	**Benchmark on dynamic PRA with simplified decay heat removal system model of sodium fast reactor – Part1 (benchmark analysis condition and thermodynamic model results)** Koki Ihara (Mitsubishi Heavy Industry, Ltd., Japan), Atsushi Matsumoto (MHI NS Engineering, Japan), Christoph Döderlein (French Alternative Energies and Atomic Energy Commission, France), Hidemasa Yamano (Japan Atomic Energy Agency, Japan), Akihiro Shibata (MITSUBISHI FBR SYSTEMS, INC., Japan)
PSAM17&ASRAM 2024-1277	**Benchmark on dynamic PRA with simplified decay heat removal system model of sodium fast reactor – Part2 (DPRA problem description and benchmark results)** Christoph Döderlein (French Alternative Energies and Atomic Energy Commission, France), Koki Ihara (Mitsubishi Heavy Industries, Ltd., Japan), Atsushi Matsumoto (MHI NS Engineering, Japan), Hidemasa Yamano (Japan Atomic Energy Agency, Japan), Akihiro Shibata (MITSUBISHI FBR SYSTEMS, INC., Japan)

Daily Program

Exhibition Hall 2

Keynote Lecture 7

08:30 - 09:15

Chair:	**Jun Zhao** (Tsinghua university, China)
Co-Chair:	**Koji Shirai** (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-KL7	**Challenges for Risk-informed Regulation in Japan** Toshiyuki Koganeya (Nuclear Regulation Authority Japan, Japan)

Keynote Lecture 8

09:15 - 10:00

Chair:	**Koji Shirai** (Central Research Institute of Electric Power Industry, Japan)
Co-Chair:	**Jun Zhao** (Tsinghua university, China)
PSAM17&ASRAM 2024-KL8	**Exploring Appropriate Risk Metrics for Advanced Nuclear Energy System** Jiejuan Tong (Tsinghua University, China)

Oct.10 (Thu.)

Exhibition Hall 2

Risk Informed Applications 5

10:20 - 11:50

Chair:	**Fernando Ferrante** (Electric Power Research Institute, United States)
Co-Chair:	**Yoshiyuki Narumiya** (Japan Nuclear Safety Institute, Japan)
PSAM17&ASRAM 2024-1115	**Study on the safety measures and risk-informed safety improvement measures implemented at Japan's nuclear power plants** Wataru Oshima, Takeshi Numata, Tomohiko Inui (The Kansai Electric Power Co.,Inc Japan, Japan)
PSAM17&ASRAM 2024-1195	**PRA and Additional Measures in 3rd Safety Improvement Evaluation of Ikata Power Plant Unit-3** Kanto Yamasaki, Nobuyuki Aono (Shikoku Electric Power CO.,INC., Japan)
PSAM17&ASRAM 2024-1171	**Extraction of Additional Measures based on Safety Improvement Assessment** Kentaro Kawazu, Daigo Hiratsuka, Masato Nishimura, Yoshihiro Ide, Tomomi Uchida (Kyushu Electric Power Co.,Inc, Japan), Kouichi Ohta, Osamu Saramoto, Shoichi Nose (Nishimu Electronics Industries Co.,Ltd, Japan)

Daily Program

Exhibition Hall 2

Topical Session 2

13:00 - 15:00

Chair:	**Kevin Coyne** (U.S. Nuclear Regulatory Commission, United States)
PSAM17&ASRAM 2024-TS2	**Emerging PSA Needs with respect to Advanced Reactor Technologies** Kevin Coyne (U.S. Nuclear Regulatory Commission, United States), Michelle Bensi (University of Maryland, United States), Seung Jun Lee (Ulsan National Institute of Science and Technology, Korea), Zahra Mohaghegh (University of Illinois at Urbana-Champaign, United States), Eric Thornsbury (Electric Power Research Institute, United States)

Oct.10 (Thu.)

Exhibition Hall 2

Topical Session 3

15:20 - 17:50

Chair:	**Yoshiyuki Narumiya** (Japan Nuclear Safety Institute, Japan)
Co-Chair:	**Fernando Ferrante** (Electric Power Research Institute, United States)
PSAM17&ASRAM 2024-TS3	**RIDM Activities of Japanese Utilities** Yoshiyuki Narumiya (Japan Nuclear Safety Institute, Japan), Fernando Ferrante (Electric Power Research Institute, United States)
PSAM17&ASRAM 2024-TS3-1	**Risk Management Activities at Tomari Nuclear Power Station** Yasunobu Suzuki, Masayoshi Kayukawa, Shinichiro Yasui, Kenta Kobayashi, Kentaro Ikka (Hokkaido Electric Power Co., Inc., Japan)
PSAM17&ASRAM 2024-TS3-2	**Application of Risk Information on Various Hazards to Plant Operation at Onagawa Nuclear Power Station** Shinnosuke Masuda, Atsushi Nishikimi, Kuniaki Suzuki (Tohoku Electric Power Co., Inc., Japan)
PSAM17&ASRAM 2024-TS3-3	**Status of Risk Informed Approach in TEPCO(KK Plant)** Ryu Harada, Iwao Yoshioka, Masayuki Hiraide, Tomohiro Kagawa, Minoru Suzuki (Tokyo Electric Power Company, Japan)
PSAM17&ASRAM 2024-TS3-4	**Utilization of risk information at Hamaoka Nuclear Power Station.** Takuya Yamazaki, Shigo Tsumura, Akira Takeshita, Tomoaki Naganawa, Takayoshi Muramatsu (Chubu Electric Power, Japan)
PSAM17&ASRAM 2024-TS-3-5	**Implementation of risk-informed component isolation prior to periodic inspection at nuclear power plants** Kazuhito Fukuda, Mareto Yamakawa, Kenichiro Ikuno, Takeshi Kunimasa, Takeshi Nishikawa (The Kansai Electric Power Co.,Inc, Japan)

Exhibition Hall 1-A

Risk Assessment Methods 7

10:20 - 11:50

Chair:	**Jakub Montewka** (Gdansk University of Technology, Poland)
Co-Chair:	**Takuya Nakashima** (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1045	**A framework for ship-ship collision risk assessment based on ALARP principle** Filip Zarzycki (Gdańsk University of Technology, Poland), Mateusz Gil (Gdynia Maritime University, Poland), Douglas Owen (Aalto University, Finland), Jakub Montewka (Gdańsk University of Technology, Poland)
PSAM17&ASRAM 2024-1308	**Towards Safety Assessment of Autonomous Ships: Integration of STPA and Scenario-Based Analysis** Takuya Nakashima (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1368	**Research on the Risk Criteria for Nuclear Facilities in Nuclear Powered Icebreakers** Yingbin Gu (CNNP Oceanic Nuclear Power Development Co.,Ltd., China), Yichun Wang (North China Electric Power University, China), Hongru Zhao (Tsinghua university, China), Yi Lin (CNNP Oceanic Nuclear Power Development Co.,Ltd., China)

Exhibition Hall 1-A

Risk Assessment Methods 8

13:00 - 15:00

Chair:	**Woo Sik Jung** (Sejong UNiversity, Korea)
Co-Chair:	**Patrick Gebhardt** (Gesellschaft für Anlagen- und Reaktorsicherheit, Germany)
PSAM17&ASRAM 2024-1203	**How to solve noncoherent fault trees by zero-suppressed ternary decision diagram algorithm for probabilistic safety assessment of nuclear power plants** Woo Sik Sik Jung (Sejong UNiversity, Korea), Seong Kyu Park (Nuclear Engineering Services & Solutions, Korea)
PSAM17&ASRAM 2024-1248	**FTA – Review of approaches for verification / presentation of failure tolerance** Per Hellström (Swedish Radiation Safety Authority, Sweden)
PSAM17&ASRAM 2024-1257	**Effect of ground motion uncertainly on seismic risk in the frame of RI-PB** Daichi Ogawa, Yasuki Ohtori, Hitoshi Muta (Tokyo City University, Japan)
PSAM17&ASRAM 2024-1275	**ADVANCING CAMIC: INNOVATIONS AND FUTURE DIRECTIONS IN THE CYCLIC ANALYTIC METHOD FOR INSTRUMENTATION AND CONTROL** Patrick Gebhardt (Gesellschaft für Anlagen- und Reaktorsicherheit, Germany)

Exhibition Hall 1-A

Risk Assessment Methods 9

15:20 - 17:50

Chair:	**Takashi Takata** (The University of Tokyo, Japan)
Co-Chair:	**Xiaoyu Zheng** (Japan Atomic Energy Agency, Japan)
PSAM17&ASRAM 2024-1060	**Probabilistic Risk Assessment for the Transition Phase of Decommissioning of BWR-6 Mark-III Nuclear Power Plant** Yi-Cheng Tian, Chen-Che Hsu, Po-Jung Chiu (National Atomic Research Institute, Taiwan)
PSAM17&ASRAM 2024-1318	**Study on Public Exposure Risk Assessment for Dismantling of Radioactive Components in Decommissioning Phase of Nuclear Reactor Facilities** Taro Shimada (Japan Atomic Energy Agency, Japan), Kazuhiko Kabata (Nippon Advanced Information Service, Japan), Shizuka Takai, Seiji Takeda (Japan Atomic Energy Agency, Japan)
PSAM17&ASRAM 2024-1184	**Probabilistic Approach for Best Estimate of Fuel Rod Fracture** Hiroki Tanaka, Takafumi Narukawa, Takashi Takata (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1286	**Analysis and Frequency Study on LOCA Initiating Events in High Temperature Gas Cooled Reactor** Yu Jing Li, Fangquan Tan, Qi Shi, Fang Lu, Feng Sun (Chinergy Co., LTD, China), Pengcheng Peng (Tsinghua University, China)

Exhibition Hall 1-B

Environmental Risk Assessment 2

10:20 - 11:50

Chair:	**Sung-yeop Kim** (Korea Atomic Energy Research Institute, Korea)
Co-Chair:	**Kazumasa Shimada** (JANUS, Japan)
PSAM17&ASRAM 2024-1266	**Development of Level 3 PSA Event Tree Model for Probabilistic Assessment of the Offsite Alarm Time** Kiwon Song, Sung-yeop Kim (Korea Atomic Energy Research Institute, Korea)
PSAM17&ASRAM 2024-1273	**Influence of spatial grids setting on the results and speed of offsite consequence analysis** Seunghwan Kim, Sung-yeop Kim (Korea Atomic Energy Research Institute, Korea)
PSAM17&ASRAM 2024-1280	**Offsite Consequence Analyses Reflecting Evacuation Alarm Times Evaluated by Level 3 PSA Event Tree Model** Sung-yeop Kim, Kiwon Song (Korea Atomic Energy Research Institute, Korea)

Exhibition Hall 1-B

Resilience Engineering 1

13:00 - 15:00

Chair:	**Vytis Kopustinskas** (Europan Commission, Joint Research Centre, Italy)
Co-Chair:	**Kampanart Silva** (National Energy Technology Center, Thailand)
PSAM17&ASRAM 2024-1246	**On The Role of Adaptations in Organizational Crisis Management – A Conceptual Framework** Henrik Hassel, Alexander Cedergren (Lund University, Sweden)
PSAM17&ASRAM 2024-1252	**LESSONS LEARNED FROM COHERENT RESILIENCE TABLETOP EXERCISES IN THE BALTIC REGION** Vytis Kopustinskas (Europan Commission, Joint Research Centre, Italy), Evaldas Dirgincius (NATO Energy Security Centre of Excellence, Lithuania), Charles Lynn (Naval Postgraduate School, United States), Isabel Asensio Bermejo (European Commission, Joint Research Centre, Italy), Lawrence Walzer (Naval Postgraduate School, United States), Darius Aukscionis (NATO Energy Security Centre of Excellence, Lithuania), Hrvoje Foretic (European Commission, Joint Research Centre, Netherlands)
PSAM17&ASRAM 2024-1321	**Development of Conceptual Framework for Adaptive State for Energy Resilience Assessment of Clean Energy Systems** Pidpong Janta, Kampanart Silva (National Energy Technology Center, Thailand), Takashi Takata, Takafumi Narukawa (The University of Tokyo, Japan), Nuwong Chollacoop (National Energy Technology Center, Thailand)
PSAM17&ASRAM 2024-1354	**Application of resilience curve for evaluation of change over time of risks in clean energy systems** Kampanart Silva, Pidpong Janta, Khemrath Vithean (National Energy Technology Center, Cambodia), Nofri Yenita Dahlan, Nurfadzilah Ahmad, Muhammad Azfar Shamil Bin Abd Aziz (Solar Research Institute, Malaysia), Wasin Vechgama (Thailand Institute of Nuclear Technology, Thailand), Mohd Rahimi Abd Rahman, Musaab Ab Kadir, Norzarina Omar (UiTM Energy & Facilities Sdn Bhd, Malaysia), Nuwong Chollacoop (National Energy Technology Center, Thailand)

Exhibition Hall 1-B

Resilience Engineering 2

15:20 - 17:50

Chair:	**Makoto Takahashi** (Tohoku University, Japan)
Co-Chair:	**Nuo Yong** (Institute of Nuclear Energy Safety Technology, HFIPS, Chinese Academy of Sciences, China)
PSAM17&ASRAM 2024-1030	**Application of Positive Lesson Learning Method to Mihama-2 SGTR Accident** Yuto Horiuchi, Makoto Takahashi (Tohoku University, Japan)
PSAM17&ASRAM 2024-1071	**Measuring the resilience for the human reliability of group in Multi-Unit Nuclear Power Plants** Nuo Yong, Daochuan Ge (Institute of Nuclear Energy Safety Technology, HFIPS, Chinese Academy of Sciences, China), Shaoxuan Wang (University of Science and Technology of China, Hefei, China, China), Feipeng Wang, Dongqin Xia (Institute of Nuclear Energy Safety Technology, HFIPS, Chinese Academy of Sciences, China)
PSAM17&ASRAM 2024-1122	**Integration of Panic Models into Platform for Radiological Emergency Agent-based Integrated Simulation Model** Minho Hwang, Geon Kim, Joonseok Lim, Sungmin Han, Gyunyoung Heo (KyungHee University, Korea)
PSAM17&ASRAM 2024-1124	**Optimizing Infrastructure Operation during Radiological Evacuation using PRISM and Reinforcement Learning** Joonseok Lim, Minho Hwang, Geon Kim, Sungmin Han, Gyunyoung Heo (Kyung Hee University, Korea)
PSAM17&ASRAM 2024-1130	**Evaluating the Efficiency of Staged Evacuation in Radiological Emergencies using Agent-Based Modeling** Sungmin Han, Minho Hwang, Geon Kim, Joonseok Lim, Gyunyoung Heo (Kyung Hee University, Korea)

Meeting Room 1

Structural Reliability Analysis Methods

10:20 - 11:50

Chair:	**Erik Vanem** (DNV, Norway)
Co-Chair:	**Yu Zhang** (China Productivity Center for Machinery Co.,Ltd. Beijing, China, China)
PSAM17&ASRAM 2024-1003	**Comparing Environmental Contours and a Sequential Sampling Method for Probabilistic Structural Reliability Assessment: A Case Study On Offshore Wind Turbines** Erik Vanem, Hong Wang, Odin Gramstad (DNV, Norway)
PSAM17&ASRAM 2024-1282	**Reliability and Critical Sensitivity Analysis of Residual Heat Removal Heat Exchanger Structure Based on Monte Carlo Sampling Method** Yu Zhang (China Productivity Center for Machinery Co.,Ltd. Beijing, China, China), Ming Yang, Jiaqing Chen (CNNC Nuclear Power Operation Management Co., LTD Zhejiang, China, China), Kun Tan, Yichen Zhang (China Productivity Center for Machinery Co.,Ltd. Beijing, China, China)
PSAM17&ASRAM 2024-1351	**Research on the structural integrity of HTGR reactor pressure vessels by using probabilistic fracture mechanics** Bowen Li (Institute of Nuclear and New Energy Technology of Tsinghua University, China), Haitao Wang (Institute of Nuclear and New Energy Technology (INET) of Tsinghua University, China)

Daily Program

Meeting Room 1

AI, Machine Learning 6

13:00 - 15:00

Chair:	**Valentin Rychkov** (Electricité de France, France)
Co-Chair:	**Vivek Agarwal** (Idaho National Laboratory, United States)
PSAM17&ASRAM 2024-1087	**Deep Autoencoding Gaussian Mixture Model for Detection of Manipulation Attacks on NPP Process Data** Junyong Bae, Ji Hyeon Shin, Seung Jun Lee (Ulsan National Institute of Science and Technology, Korea)
PSAM17&ASRAM 2024-1094	**Deep Learning Model for Predicting Future Trends of NPP Parameters with Accident Trend Predictor and Operator Action Impact Evaluator** Donghee Jung, Junyong Bae, Seung Jun Lee (Ulsan National Institute of Science and Technology, Korea)
PSAM17&ASRAM 2024-1386	**Condition-Based Maintenance of a Circulating Water System of a Canadian Nuclear Power Plant using Machine Learning and Statistical Tools** Chaitee M Godbole, Congjian Wang, Vivek Agarwal, Diego Mandelli (Idaho National Laboratory, United States), Mohammad Movassat, Brian Mori, Eddy Nur, Amir Birjandi, Bryan Lobo, Natalia Murica Jacome (Ontario Power Generation, Canada)
PSAM17&ASRAM 2024-1335	**Impact of Generative AI (Large Language Models) on the PRA model construction and maintenance, observations.** Valentin Rychkov, Claudia Picoco, Caleca Emilie (Electricité de France, France)

Meeting Room 1

Reliability Analysis 2

15:20 - 17:50

Chair:	**Yu Yu** (North China Electric Power University, China)
Co-Chair:	**Sergey Galushin** (Vysus Group, Sweden)
PSAM17&ASRAM 2024-1056	**Reliability Analysis of Passive Containment Cooling System Using GO-FLOW Methodology** Shuanghan Ling (Chengdu Hezong Nuclear Power Engineering Co., Ltd, China), Jun Yang, Chuanlong Jiang (South China University of Technology, China), Wanqing Chen (China Ship Development and Design Center, China)
PSAM17&ASRAM 2024-1101	**A Hybrid Method for Reliability Modeling of Reactor Protection Systems** Xiwen Xie, Changhong Peng (University of Science and Technology of China, China)
PSAM17&ASRAM 2024-1140	**The effect of air temperature probability distribution form on the system reliability of PCCS in AP1000** Yu Yu (North China Electric Power University, China)
PSAM17&ASRAM 2024-1197	**Reliability Assessment of Passive Isolation Condenser System of AHWR Based on Artificial Neural Network** Hong Jiang (University of Science and Technology of China, China)
PSAM17&ASRAM 2024-1294	**Reliability Assessment of Passive Isolation Condenser System of BWRX-300** Graeme Trundle (Royal Institute of Technology, Sweden), Sergey Galushin (Vysus Group, Sweden), Sean Roshan Ghias (sean@safety.sci.kth.se, Sweden), Anders Olsson (Vysus Group, Sweden), Michael Söderström (Vattenfall AB, Sweden), Sevostian Bechta (Royal Institute of Technology, Sweden)

Meeting Room 2

Uncertainty and Sensitivity Analysis 1

10:20 - 11:50

Chair:	**Yuichi Naito** (Central Research Institute of Electric Power Industry , Japan)
Co-Chair:	**Takashi Takata** (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1002	**Distribution-free stochastic model updating for the Physics-guided reliability analysis of a material thermal property under limited data** Adolphus Lye (National University of Singapore, Singapore), Scott Ferson (University of Liverpool, United Kingdom), Sicong Xiao (National University of Singapore, Singapore)
PSAM17&ASRAM 2024-1072	**Sensitivity analyses of COMIDA2 parameters in WinMACCS on Japanese food doses** Yuichi Naito, Ryogo Kurokawa, Masaharu Tsuzaki (Central Research Institute of Electric Power Industry, Japan)

Meeting Room 2

Uncertainty and Sensitivity Analysis 2

13:00 - 15:00

Chair:	**Man Cheol Kim** (Chung-ang University, Korea)
Co-Chair:	**Takafumi Narukawa** (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1034	**Development of Source Term Uncertainty Analysis Framework for BWR Plants Using MAAP Code** Hiroki Osato, Yoshihiro Kojima, Yoshiro Nishioka, Hisaki Sato (Toshiba Energy Systems & Solutions Corporation, Japan)
PSAM17&ASRAM 2024-1119	**Uncertainty and Sensitivity Analysis in Large-LOCA Scenarios Using MAAP and WinMACCS** Ryogo Kurokawa, Masaharu Tsuzaki (Central Research Institute of Electric Power Industry, Japan)
PSAM17&ASRAM 2024-1073	**A Bayesian approach for designing experiments based on information criteria to reduce prediction uncertainty of fuel fracture during LOCA** Shusuke Hamaguchi, Takafumi Narukawa, Takashi Takata (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1220	**Uncertainty analysis for human reliability analysis with Empirical Bayes method and Kass-Steffey adjustment** Gyun Seob Song, Man Cheol Kim (Chung-Ang University, Korea)

Meeting Room 2

Risk-Informed Performance-Based Regulation 2

15:20 - 17:50

Chair:	**Jan-Erik Holmberg** (Radiation and Nuclear Safety Authority in Finland, Finland)
Co-Chair:	**Per Hellström** (Swedish Radiation Safety Authority, Sweden)
PSAM17&ASRAM 2024-1036	**Implementing an Objectives-Driven, Risk-Informed, and Case-Assured Approach to Safety and Mission Success at NASA** Homayoon Dezfuli (National Aeronautics and Space Administration, United States), Chris Everett, Bob Youngblood (Idaho National Laboratory, United States), Matt Forsbacka (National Aeronautics and Space Administration, United States)
PSAM17&ASRAM 2024-1249	**Review of probabilistic acceptance criteria and their relation to radiological acceptance criteria** Per Hellström (Swedish Radiation Safety Authority, Sweden)
PSAM17&ASRAM 2024-1005	**Research on Regulatory Safety Performance Indicators for High-temperature Gas-cooled Reactor** Guoxu Zhang (Shanghai Nuclear Engineering Research & Design Institute Co., Ltd., China), Jing Wu (Huaneng Shandong Shidao Bay Nuclear Power Company Co., Ltd. , China), Binbin Zhang, Lu Chen (Shanghai Nuclear Engineering Research & Design Institute Co., Ltd., China)
PSAM17&ASRAM 2024-1134	**A tool for risk-informed graded approach for regulatory oversight of nuclear facilities** Jan-Erik Holmberg, Ari Julin (Radiation and Nuclear Safety Authority in Finland, Finland)

Meeting Room 3(A,B)

Industrial Safety 1

10:20 - 11:50

Chair:	**Taotao Zhou** (China University of Petroleum-Beijing, China)
Co-Chair:	**Tsu-Mu Kao** (National Atomic Research institute, Taiwan)
PSAM17&ASRAM 2024-1007	**External Corrosion Assessment of Oil and Gas Pipelines using 1D Convolutional Neural Network** Fengyi Lan, Taotao Zhou (China University of Petroleum-Beijing, China), Bingcai Sun (CNPC Research Institute of Safety and Environment Protection Technology, China), Yuntao Li, Qingqing Xu, Laibin Zhang (China University of Petroleum-Beijing, China)
PSAM17&ASRAM 2024-1063	**Risk mitigation effectiveness for LNG terminal station** Chiahui Huang, Tai-Hung Wu, Tsu-Mu Kao (National Atomic Research institute, Taiwan)
PSAM17&ASRAM 2024-1160	**Immersive Game Development for Safety Training in the Process Industries** Davi Caldas, Plinio Ramos, Caio Souto Maior, Isis Lins, Marcio Moura (Universidade Federal de Pernambuco, Brazil)

Meeting Room 3(A,B)

Industrial Safety 2

13:00 - 15:00

Chair:	**Jakub Montewka** (Gdansk University of Technology, Poland)
Co-Chair:	**Tsuyoshi Ito** (Hitachi-GE Nuclear Energy, Ltd., Japan)
PSAM17&ASRAM 2024-1037	**Reduction of occupational radiation exposure nuclear power plant using chemical decontamination** Tsuyoshi Ito (Hitachi-GE Nuclear Energy, Ltd., Japan)
PSAM17&ASRAM 2024-1107	**Statistical survey on the Prevention of Major Accidents (MA) in the EU Member States in 2000-2020 (focusing on the identification of causes and affected facilities)** Katarina Holla (University of Zilina, Slovakia)
PSAM17&ASRAM 2024-1102	**AN UPDATED FRAMEWORK FOR DIMENSIONING SAFE PARAMETERS OF INLAND WATERWAYS ADOPTING FUZZY LOGIC** Ievgen Medvediev (Gdańsk University of Technology, Poland), Dmitriy Muzylyov (State Biotechnological University, Ukraine), Jakub Montewka (Gdańsk University of Technology, Poland)
PSAM17&ASRAM 2024-1350	**Probabilistic approach to risk assessment for alternative design of hydrogen fuel tank arrangements on small ships** Junichi Kudo, Arata Kimura, Hiroko Itoh, Hideyuki Oka (National Institute of Maritime, Port and Aviation Technology National Maritime Research Institute, Japan)

Meeting Room 3(A,B)

Internal Hazards PSA/PRA 3

15:20 - 17:50

Chair:	**Isabelle Miramon** (IRSN, France)
Co-Chair:	**Anders Olsson** (Vysus Sweden AB, Sweden)
PSAM17&ASRAM 2024-1174	**SIMPLIFIED METHOD OF FIRE PRA MODEL IN PRELIMINARY DESIGN STAGE WITHOUT DETAILED DATA** Meiru Liu, Fengjun Li, Qingqing Xu, Jian Yang (China Nuclear Power Engineering Co., Ltd., China)
PSAM17&ASRAM 2024-1217	**Risk Analysis of Large Radioactive Release Caused by Internal Flooding in HPR1000** Shujie Guo, Jing Liu, Yu Liu, Wei Wei (China Nuclear Power Engineering Co., Ltd., China)
PSAM17&ASRAM 2024-1408	**Challenges to develop and draw relevant lessons from the Level 1 Internal Flooding PSA** Isabelle Miramon, Kimlee Bourgeois, Guillaume Kioseyian, Gabriel Georgescu, Emmanuel Raimond (IRSN, France)
PSAM17&ASRAM 2024-1263	**PSA of the Spent Fuel Pools at Oskarshamn 3** Anders Olsson, Sebastian Jovancic (Vysus Sweden AB, Sweden)

Daily Program

Meeting Room 4(A,B)

Maintenance Modelling and Optimization 2

10:20 - 11:50

Chair:	**Kenta Murakami** (The University of Tokyo, Japan)
Co-Chair:	**Carroll Trull** (Engineering Planning and Management Inc., United States)
PSAM17&ASRAM 2024-1046	**Availability Analysis of Heliotron J water-cooling system by the GO-FLOW methodology** Takeshi Matsuoka (Utsunomiya University & National Maritime Research Institute, Japan), Shinji Kobayashi, Kazunori Morishita, Hidekazu Yoshikawa (Kyoto University, Japan)
PSAM17&ASRAM 2024-1372	**Modeling for maintenance using system reliability model with degradations in multiple components and their interactions** Suzune Katayama, Kenta Murakami (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1373	**Development of Risk Informed Aging Management Program in Decommissioning** Masao Uesaka (Nagaoka University of Technology, Japan), Kenta Murakami (The University of Tokyo, Japan)

Oct.10 (Thu.)

Meeting Room 4(A,B)

Dynamic PSA/PRA 3

13:00 - 15:00

Chair:	**Hassane Chraibi** (Electricité de France, France)
Co-Chair:	**Renan Guedes Maidana** (SINTEF Ocean AS, Norway)
PSAM17&ASRAM 2024-1006	**Interoperability of Physical Simulation Models and Probabilistic Reliability Assessment Tools: A Case Study on Heating, Ventilation, and Air Conditioning Systems** Hassane Chraibi, Richard Quatrain, Pascal Borel, Youssef Hammadi, Philippe Carer (Electricité de France, France)
PSAM17&ASRAM 2024-1133	**Development of Post-processing Method for Extracting Success Criteria in Dynamic Event Tree Analysis** Yongjoon Lee, Yuntae Gwak, Dohun Kwon, Gyunyoung Heo (KyungHee University, Korea)
PSAM17&ASRAM 2024-1202	**Automatic Accident Sequences Generation for Dynamic PSA** Wooseok Jo, Junyong Bae (Ulsan National Institute of Science and Technology, Korea), Dongsan Kim (Korea Atomic Energy Research Institute, Korea), Seung Jun Lee (Ulsan National Institute of Science and Technology, Korea)
PSAM17&ASRAM 2024-1361	**Towards the Use of Temporal Convolutional Networks for Guiding Dynamic Risk Assessment Methods** Renan Guedes Maidana (SINTEF Ocean, Norway), Yiliu Liu (Norwegian University of Science and Technology, Norway)

Daily Program Oct.10 (Thu.)

Meeting Room 4(A,B)

Dynamic PSA/PRA 4

15:20 - 17:50

Chair:	**Florian Berchtold** (Gesellschaft fuer Anlagen- und Reaktorsicherheit gGmbH, Germany)
Co-Chair:	**Takafumi Narukawa** (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1070	**Preliminary Study for Branch Probability Estimation in Level 2 PSA with DICE™ and MELCOR** Dohun Kwon, Gyunyoung Heo (Kyung Hee University, Korea)
PSAM17&ASRAM 2024-1112	**Development of complex external event scenarios using dynamic event trees in DICE** Yuntae Gwak, Gyunyoung Heo (Kyung Hee University, Korea)
PSAM17&ASRAM 2024-1123	**Application of Dynamic PRA to Nuclear Power Plant Operation Support - Evaluation of Plant Operation Support Using a Simple Plant Model -** Nami Yamamoto, Mami Kagimoto, Yohei Ueno (Mitsubishi Electric Corporation, Japan), Takafumi Narukawa, Takashi Takata (The University of Tokyo, Japan)
PSAM17&ASRAM 2024-1258	**Uncertainty Estimation for Human-System Interactions – Recent Developments and Application of the MCDET Crew Module** Tanja Eraerds, Ines Mateos Canals, Josef Scheuer, Jan Soedingrekso (Gesellschaft für Reaktor und Anlagensicherheit, Germany)
PSAM17&ASRAM 2024-1381	**Bridging the gap between Static and Dynamic Probabilistic Assessment: a step forward** Claudia Picoco, Valentin Rychkov (Electricité de France, France)

Daily Program Oct.11 (Fri.)

Exhibition Hall 2
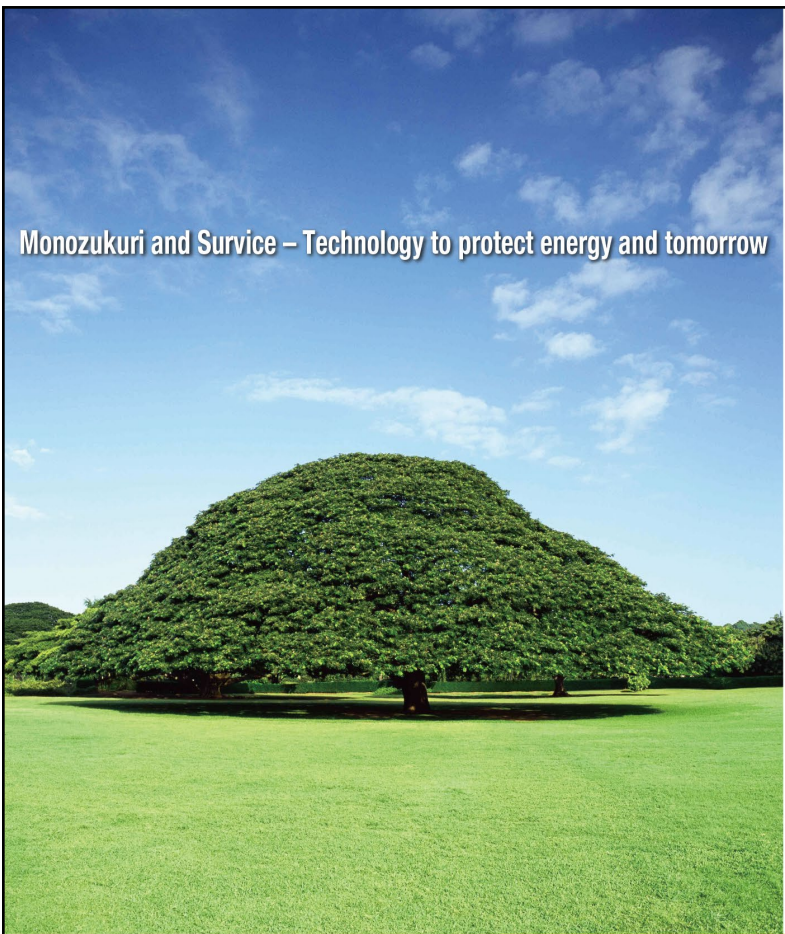
Topical Session 4

09:00 - 10:30

Chair:	**Jinya Katsuyama** (Japan Atomic Energy Agency, Japan)
Co-Chair:	**Yoshihito Yamaguchi** (Japan Atomic Energy Agency, Japan)
PSAM17&ASRAM 2024-TS4	**Overview of the 5th International Symposium on Probabilistic Methodologies for Nuclear Applications (ISPMNA5) - Further Practical Application of Probabilistic Fracture Mechanics -** Jinya Katsuyama, Yu Maruyama (Japan Atomic Energy Agency, Japan), Cedric J. Sallaberry (Engineering Mechanics Corporation of Columbus, United States), Haruko Sasaki (The secretariat on the Nuclear Regulation Authority, Japan), Taku Sato (Atomic Energy Association, Japan)

Closing and Ice Cream Social

10:30 - 11:15

PSAM17 & ASRAM2024

Probabilistic Safety Assessment and Management

&

Asian Symposium on Risk Assessment and Management

- ## October 7-11, 2024
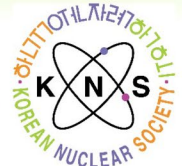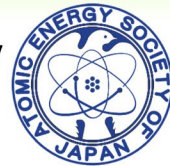- ## Sendai International Center, Sendai, Miyagi, Japan

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より、そう、ちから。
東北電力

TEPCO

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北陸電力

Kansai Electric Power
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Energia 中国電力

YONDEN

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The Japan Atomic Power Company

J-POWER

JAPAN NUCLEAR FUEL LIMITED