

ANS **CALL FOR PAPERS**

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PROGRAM SPECIALIST
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NPIC&HMIT and ISOFIC 2027

**15th International Topical Meeting on Nuclear Plant
Instrumentation, Control & Human-Machine Interface Technologies
(NPIC&HMIT 2027)**

**9th International Symposium on Future I&C for Nuclear Power Plants
(ISOFIC 2027)**

May 9–13, 2027 | Salt Lake City, UT, USA | Hilton Salt Lake City Center

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IMPORTANT DEADLINES

**ABSTRACTS
SUBMISSION**
NOVEMBER 20, 2026

**ABSTRACT REVIEW
NOTIFICATION**
DECEMBER 4, 2026

**FULL PAPERS
SUBMISSION**
JANUARY 29, 2027

**FULL PAPER REVIEW
NOTIFICATION**
FEBRUARY 18, 2027

**FINAL CAMERA-READY
PAPERS SUBMISSION**
FEBRUARY 25, 2027

ABOUT THE CONFERENCE

This conference marks a premier milestone as the joint conference of 15th International Topical Meeting on Nuclear Plant Instrumentation, Control & Human-Machine Interface Technologies (NPIC&HMIT 2027) and 9th International Symposium on Future I&C for Nuclear Power Plants (ISOFIC 2027).

Organized by the Human Factors, Instrumentation & Controls Divisions (HFICD) of American Nuclear Society (ANS) and the Korean Nuclear Society (KNS), this joint meeting serves as the definitive global forum for nuclear I&C and human factors engineering professionals. This collaboration brings together industry leaders, academic researchers, and regulatory experts to explore the current state of technology, exchange critical insights, and shape the future of the field.

The conference invites the submission of full-length technical papers across a broad range of disciplines, including: Instrumentation & Control (I&C), Human Factors Engineering, Cyber Security, Artificial Intelligence and Machine Learning, and Advanced Modeling and Simulation.

All submissions will undergo a rigorous peer-review process and will be published in the formal conference proceedings. Please note that accepted papers must be presented at the conference to be included in the final proceedings. Sessions will be organized into podium presentations, technical panels, and student competitions.

Detailed information, submission guidelines, and ongoing announcements are available on the official joint conference webpage <https://www.ans.org/meetings/view-npichmitisofic2027/>.

ABSTRACT GUIDELINES

Maximum of one page identifying title, authors, affiliations, and three paragraphs (total fewer than 500 words) describing the key concepts of the paper. A wide range of topic areas are highlighted below. Authors are encouraged to submit papers on these proposed topics as well as others. [The abstract template is on the official joint conference web page.](#) Additionally, please follow these formatting/submittal guidelines:

- Do not use all capital letters for the title or any part of any authors' names. For the title of the abstract, Capitalize the First Letter of Major Words. Author names should be First Name or Initial(s) followed by Last Name.
- The names of all authors should be entered into the Authors page in the Electronic Paper Submission and Review (EPSR) system. List the authors in the same order in which their names appear in the abstract. Author information in the conference program is derived from the entries in the EPSR's Authors page.
- In the EPSR, authors' affiliations should match the affiliation provided on the abstract itself. If an author has multiple affiliations, enter the ONE that should be included in the program, assuming the abstract and subsequent paper are accepted.

FULL PAPER SUBMISSION

Authors of accepted abstracts will be invited to submit full papers. Full papers must describe work that is new, significant, and relevant to the conference. The limit for full-paper submissions is 10 pages. If a paper over 10 pages is accepted, page charges are \$100/page for p. 11 and above. Authors of accepted papers must agree to register and attend the conference and present their papers. Papers that are not presented in person at the conference will not appear in the final conference publication.

STUDENT PAPER COMPETITION

We welcome and encourage students to submit papers to this conference. Please ensure that papers for which the Primary Author is a student are identified as such in the yes/no student- status question in the Authors section of the EPSR. The technical program committee will use this information to identify the papers invited for the student paper competition. A "student paper" is a paper whose first author and presenter is a student.

SUGGESTED TOPICS

IC. INSTRUMENTATION AND CONTROLS (I&C)

IC1	Advanced Sensor Technology
IC2	Advanced Surveillance, Online Monitoring, Diagnostics, and Prognostics
IC3	Autonomous Control and Operation of Nuclear Reactors
IC4	Cybersecurity in Nuclear Reactors
IC5	Cybersecurity in I&C
IC6	Cybersecurity in Wireless Technologies
IC7	Cybersecurity Regulations, Standards, and Guidelines
IC8	Digital Twins and Their Applications
IC9	Economics and Operation of Reactor Technologies
IC10	I&C and Cybersecurity Panels
IC11	I&C for Advanced Reactors and Small Modular Reactors
IC12	I&C for Integrated Energy Systems
IC13	I&C Regulations, Standards, and Guidelines
IC14	I&C System Reliability
IC15	Machine Learning and Artificial Intelligence for Nuclear
IC16	Other Topics in I&C and Cybersecurity
IC17	Reduced Order Models and Surrogates for I&C
IC18	Remote Operation, Monitoring, and Maintenance
IC19	Robotics for Nuclear Applications
IC20	Structural Health Monitoring
IC21	Theory and Applications of Large Language Models in Nuclear Energy
IC22	Verification, Validation, and Uncertainty Quantification
IC23	Wireless Technologies for Nuclear Facilities

HF. HUMAN FACTORS (HF)

HF1	Advances in HF Design and Analysis Methods
HF2	Computerized Procedures and Digital Instructions
HF3	HF Considerations for Artificial Intelligence and Machine Learning Systems
HF4	HF Considerations for Autonomy
HF5	HF Considerations for Balance of Plant
HF6	HF Considerations for Control Room Modernization
HF7	HF Considerations for Remote Operations, Monitoring, and Maintenance
HF8	HF Considerations for Verification and Validation
HF9	HF for Advanced Visualization, Operator Aids, and Support Systems
HF10	HF for Cybersecurity
HF11	HF for Novel Concepts of Operations
HF12	HF Operator Studies
HF13	HF Panels
HF14	HF Standards and Guidelines
HF15	Human-Automation Interaction
HF16	Human Performance Evaluation and Monitoring
HF17	Human Reliability Analysis
HF18	Human-System Interface and Alarm Design
HF19	Operating Experience
HF20	Other Topics in HF
HF21	Staffing and Qualification of Personnel
HF22	Task Analysis and Function Allocation
HF23	Workstation and Workplace Design

Note: The topics listed above are not the final session titles; they are provided just as a guide. The Technical Program Committee will be happy to expand the areas and include new sessions into the program. Please contact the Technical Program Chairs (fan.zhang@me.gatech.edu or sjlee420@unist.ac.kr) to discuss new and alternative concepts.