



# 11<sup>th</sup> International Symposium of Symbiotic Nuclear Power ISSNP-2024: AI Applications in Nuclear Systems

September 23-25, 2024 | Harbin, China | <http://issnp2024.aconf.org>

## CALL FOR PAPERS

### SYMPOSIUM OVERVIEW

Following ten successful ISSNP among China, Japan, and South Korea, ISSNP-2024 is set for **September 23-25, 2024**, in **Harbin, China's northern ice city**. Hosted by the Chinese Nuclear Society and organized by its Digitalization & System Engineering Branch and Heilongjiang Nuclear Society, the event aims to facilitate high-level academic exchange. Gathering global nuclear energy experts, discussions will delve into cutting-edge topics: human computer interaction (HCI), human machine interface (HMI), artificial intelligence (AI) technologies, instrumentation and control, and symbiosis of technology in symbiotic systems and nuclear industries. This conference is a crucible of intellectual exchange and a pivotal step towards global nuclear technology collaboration.

### IMPORTANT DATES

<b>JULY 15</b> DDL for submission of abstract	<b>20</b> Notification of abstract acceptance
<b>AUGUST 20</b> DDL for submission of extended abstract/full paper	<b>30</b> Notification of final acceptance
<b>SEPTEMBER 01</b> Opening for registration	

### PAPER SUBMISSION

**Abstracts** submitted will undergo peer review. Accepted authors will be notified to proceed with submitting **extended abstracts** or **full papers** via the submission portal. Selection will be based on relevance, significance, originality, and novelty. Emphasis is placed on the original work; plagiarism is strictly prohibited. Mandatory presentation of accepted works at the symposium is required for inclusion in the proceedings, with full papers considered for the special issue publication. Adherence to stated deadlines is imperative. Access the submission portal and full paper template via the ISSNP website.

### PUBLICATION

Selected full papers will be peer-reviewed and submitted to a special issue in **International Journal of Advanced Nuclear Reactor Design and Technology** (or **JANDT**, Online ISSN: 2468-6050, OA, EI, free of publication Fee in this issue). Details will be announced in the website.

### TECHNICAL TRACKS

#### 1. AI@SAFETY & RISK

AI related studies from social, environmental and economic aspects of nuclear energy.

#### 2. AI@OPERATION & PERFORMANCE

AI related studies about sensors, instrumentation and control, operation, testing and maintenance, operator support, human machine interface of nuclear power systems.

#### 3. AI@ENERGY SYSTEMS

AI related studies about integrated aspects of energy systems (i.e., multipurpose utilization of nuclear energy, nuclear fuel cycle, plant decommissioning, comparative study of nuclear energy, etc.)

#### 4. AI@MODELING & SIMULATION

AI related studies about modeling and simulation for reactors and nuclear fuel reprocessing technologies.

#### 5. AI@NUCLEAR ENGINEERING

AI related studies about reactor physics, thermal hydraulics, reactor core and plant behavior, nuclear fuel behavior, new reactor concepts, etc.

ISSNP Organizing Committee:

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