

Springer Book Series  
Smart Innovation, System  
and Technologies (SIST)  
SCOPUS, EI Compendex



AISS 2026

Osaka, Japan | October 23-25

2026 Second International Conference on Artificial Intelligence for Sustainable Society

Special  
Session 5



ARTIFICIAL INTELLIGENCE IN COMPUTATIONAL SCIENCE AND ENGINEERING

◆ Call For Papers

TOPICS OF INTEREST INCIUDE, BUT ARE NOT IIMITED TO

- AI-Assisted Computational Modeling
- Digital Twins and Intelligent Simulation
- Data-Driven Modeling and Hybrid Physics–AI Models
- Machine Learning for Computational Mechanics
- AI-Based Optimization
- Uncertainty Quantification and Explainable AI in Scientific Computing
- AI for Materials Science
- AI-Supported Decision Making
- AI Applications in Energy Systems and Renewable Energy
- AI for Environmental and Climate Modeling
- AI for Smart Manufacturing and Industrial Engineering
- Mathematical Modeling with Artificial Intelligence
- Deep Learning for Engineering Applications
- Reinforcement Learning for Engineering Optimization
- Emerging Applications of AI in Computational Science and Engineering
- Role of AI in Industiral Sustainability
- Trustworthy, Interpretable, and Responsible • AI in Computational Science
- Machine learning techniques for Computational Fluid Dynamics (CFD)
- AI in Biomedical and Healthcare Engineering Simulations



SESSION CHAIR

Talha Anwar

Doctor

Walailak University, Thailand

Artificial intelligence is reshaping computational science and engineering by enabling more efficient modeling, simulation, optimization, and data-driven decision-making across diverse scientific and engineering disciplines. By integrating machine learning with mathematical modeling, numerical methods, and high-performance computing, AI is accelerating scientific discovery while improving the accuracy, scalability, and reliability of computational approaches. This Special Session aims to provide an interdisciplinary forum for researchers and practitioners to explore recent advances, emerging challenges, and innovative applications of AI in computational science and engineering. The session welcomes theoretical, computational, and application-oriented contributions on topics including physics-informed machine learning, AI-assisted numerical simulation, scientific machine learning, surrogate and reduced-order modeling, digital twins, optimization, uncertainty quantification, computational fluid dynamics, computational mechanics, materials modeling, and intelligent data-driven engineering systems. Contributions addressing the integration of AI with traditional computational methods for solving complex, real-world problems in energy, manufacturing, healthcare, environmental science, and other engineering domains are particularly encouraged. By bringing together researchers from applied mathematics, computer science, artificial intelligence, computational science, and engineering, this session seeks to foster interdisciplinary collaboration, promote the development of trustworthy and efficient AI-enhanced computational methods, and advance intelligent technologies that support sustainable scientific and engineering innovation.

◆ Important Dates

Submission Deadline

September 15

Notification Date

September 30

Registration Deadline

October 10

Conference Date

October 23-25

◆ Publication

All accepted papers will appear in the conference proceedings published by Springer-Verlag in One volume of Springer Book Series Smart Innovation, System and Technologies (SIST).The book series is indexed by SCOPUS, EI Compendex, INSPEC, WTI Frankfurt eG, zbMATH, Japanese Science and Technology Agency (JST), SCImago, DBLP. All books published in the series are submitted for consideration in Web of Science.

AISS 2025 proceedings | Springer book series: Advances in Sustainability Science and Technology (ASST)

<https://link.springer.com/book/9783032252661>

◆ Submission

ENTER THE SUBMISSION SYSTEM AND SELECT SPECIAL SESSION

- Submissions should include author information, abstract, 5-10 keywords, and be in PDF format. Paper length should be longer than 10 pages in conference template.
- Abstract/ Presentation: Abstract submission required; oral presentation only; will not be published.
- Full Paper/Publication: Full paper submission required; presentation required; will be published.
- Submission Link: <https://www.zmeeting.org/submission/aiss2026>

Conference Program ◆

October 23, 2026 | 10:00 - 17:00

Pre-conference Registration

October 24, 2026 | 08:30 - 12:10

Walk-in Registration & Information Booth  
& Keynote Speech

October 24, 2026 | 15:30 - 20:00

Concurrent Sessions & Dinner

October 25, 2026 | 09:00 - 17:00

Excursion or Technical Visit

◆ Contact Us

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More Information : <https://www.icaiss.net/ss5.html>