AROB-ISBC 2025

The Thirtieth International Symposium on

Artificial Life and Robotics

(AROB 30th 2025)

The Tenth International Symposium on

BioComplexity

(ISBC 10th 2025)

ORGANIZED BY

International Society of Artificial Life and Robotics (ISAROB)

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The Society of Instrument and Control Engineers (SICE, Japan)
The Institute of Electrical Engineers of Japan (IEEJ, Japan)
The Institute of Electronics, Information and Communication Engineers (IEICE, Japan)
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HISTORY

The AROB symposium was founded in 1996 under the support of Science and International Affairs Bureau, Ministry of Education, Culture, Sports, Science and Technology, Japanese Government. Since then, the symposium organized by the AROB has been held every year at B-Con Plaza, Beppu, Japan except AROB 5th '00 (Oita), AROB 6th '01 (Tokyo) and AROB 18th '13 (Daejeon, Korea). The thirtieth symposium will be held on January 22-24, 2025, at B-Con PLAZA, Beppu, JAPAN.

OBJECTIVE

This symposium will bring together researchers to discuss development of new technologies concerning *artificial life and robotics* based on computer simulations and hardware designs of state-of-the-art technologies, and to share findings on how advancements in artificial life and robotics technologies that relate to artificial intelligence, virtual reality, and computer science are creating the basis for exciting new research and applications in various fields.

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Accepted papers will be published in the proceeding of AROB-ISBC2025 and some of high quality papers in the proceeding will be requested to re-submit their papers for the consideration of publication in an international journal ARTIFICIAL LIFE AND ROBOTICS. All correspondence related to the symposium should be addressed to AROB Secretariat.

AROB Secretariat

International Society of Artificial Life and Robotics
1-9-4-101 Hatakenaka, Oita, 870-0856, Japan

Tel: +81-97-594-0181
Fax: +81-97-547-9242
Email: arobsecr@isarob.org
URL：https://isarob.org/symposium/

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B-Con Plaza, Beppu, Japan, January 22-24, 2025

GENERAL SESSION TOPICS

Artificial intelligence	Artificial life
Bio-inspired robotics	Biomedical database & Medical informatics
Cognitive science & Complexity	Control and analysis techniques
Control techniques	Evolutionary computations (Genetic algorithm)
Human-machine interaction and collaboration	Identification and estimation
Machine learning	Mobile robots and motion planning
Mobile robots	Model estimation
Multi-agent systems	Neural networks
Robot vision and image processing	Robotic mechanism
Sensor and multi-sensor data fusion	Swarm intelligence

ORGANIZED SESSION TOPICS

AROB: Advanced AI Applications and Robotics
AROB: Bio-inspired theory and applications (1)
AROB: Bio-inspired theory and applications (2)
AROB: Biomimetic Machines and Robots I
AROB: Biomimetic Machines and Robots II
AROB: Co-creation in research and education
AROB: Construction of lunar bases and lunar exploration by AI-powered robots I
AROB: Construction of lunar bases and lunar exploration by AI-powered robots II
AROB: Evolving Robotics and Machine Learning Applications
AROB: F-REI New Research Unit in the Robotics Field: Autonomy, Intelligence and Swarm Control
AROB: Human-Centered Robotics
AROB: Interdisciplinary Approaches to Data-Driven Biological and Medical Research
AROB: Intuitive Human-System Interaction I
AROB: Intuitive Human-System Interaction II
AROB: Mobile Robot Control
AROB: New Developments in Data Science for Cognition, Design, and Learning
AROB: Robot and Control
AROB: Robotics with Intelligence and/or Informatics I
AROB: Robotics with Intelligence and/or Informatics II
AROB: System Sensing and Its Applications 1
AROB: System Sensing and Its Applications 2
AROB: Vehicle and Mobile Robot Technology I
AROB: Vehicle and Mobile Robot Technology II
ISBC: Collective Intelligence and Individual Emergence in Biological and Artificial Systems
ISBC: Complex and Collective Systems: Theory and Data Analysis