

THE TWENTY-FOURTH INTERNATIONAL SYMPOSIUM ON
ARTIFICIAL LIFE AND ROBOTICS

(AROB 24th 2019)

AND

THE FOURTH INTERNATIONAL SYMPOSIUM ON
BIOCOMPLEXITY

(ISBC 4th 2019)

ORGANIZED BY

International Society of Artificial Life and Robotics (ISAROB)

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The Institute of Electrical Engineers of Japan (IEEEJ, Japan)

The Institute of Electronics, Information and Communication Engineers (IEICE, Japan)

CO-OPERATED BY

The Society of Instrument and Control Engineers (SICE, Japan)

The Robotics Society of Japan (RSJ, Japan)

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HISTORY

The AROB 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 twenty-fourth symposium will be held on January 23–25, 2019, 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 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

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GENERAL SESSION TOPICS

Agent-based Modelling
Artificial intelligence
Artificial life
Biomedical imaging
Cognitive science
Complexity
Control techniques
Data mining
Evolutionary computations (Genetic algorithm)
Human-machine interaction and collaboration
Identification and Estimation
Intelligent control
Learning
Manipulator
Medical Informatics
Mobile robots
Motion planning and navigation
Multi-agent systems
Neural networks
Robot vision and image processing
Robotic Mechanism
Sensor and multi-sensor data fusion
Swarm intelligence
Tele-operation

ORGANIZED SESSION TOPICS

Biocolor imaging and its practical and clinical applications
Bio-inspired theory and applications
Biomimetic Machines and Robots
Deep Learning Approaches to Textual Information
Intelligence and Robotics
Intuitive Human-System Interaction
Learning and Control
Machine Learning Applications to Movement Detections
Robot Control and Signal Processing
Robotics with Intelligence and/or Informatics
System Sensing and Its Applications
Vehicle dynamics and control

Complexity
Genome, Food Preference, Environmental Factors, and Prognostic Medication