

THE TWENTY-THIRD INTERNATIONAL SYMPOSIUM ON
ARTIFICIAL LIFE AND ROBOTICS

(AROB 23rd 2018)

AND

THE THIRD INTERNATIONAL SYMPOSIUM ON
BIOCOMPLEXITY

(ISBC 3rd 2018)

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International Society of Artificial Life and Robotics (ISAROB)

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The Institute of Electronics, Information and Communication Engineers (IEICE, 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-third symposium will be held on January 18–20, 2018, 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 brain & Brain science
Artificial intelligence
Bioinformatics & Medical informatics
Chaos & Complexity
Cognitive science
Control techniques
Data mining
Evolutionary computations (Genetic algorithm)
Human-machine interaction and collaboration
Learning
Motion planning and navigation
Multi-agent systems
Neural networks
Robot vision and image processing
Robotic Mechanism
Sensor and multi-sensor data fusion
Swarm Intelligence

ORGANIZED SESSION TOPICS

Advanced intelligent system for education
Bio-inspired theory and applications
Biomimetic Machines and Robots
Computational methods for Human Biological information
Intuitive Human-System Interaction
Learning and Control
Modeling and Control of Motion
Protocomputing
Robot control and AR/VR
Robotics with Intelligence and/or Informatics
Robotics: Design and Intelligence
Social Simulation
System control and optimization for IoT technologies
System Sensing and Its Applications

Biological and visualization systems
Bridging a gap between pathogenic variant and disease phenotype for precision medicine