

MESSAGES



Hiroshi Tanaka

General Chair

Professor, Tokyo Medical and Dental University

A handwritten signature in black ink that reads "Hiroshi Tanaka".

It is my great pleasure and honor to welcome you all to the Nineteenth International Symposium on Artificial Life and Robotics (AROB 19th 2014). AROB 18th of last year was firstly held outside Japan, at Daejeon in Korea with great success. This year AROB symposium returns back to Beppu, Japan: the symposium's original venue, where we would be launching renewed series of AROB symposiums afresh for next decades of the future. In organizing this year AROB symposium, we are in debt to many Japanese academic associations such as SICE, RSJ, IEEEJ, IEICE, ISCIE and JSOM. I would like to express my sincere thanks to all of those who make this symposium possible.

As is needless to say, Alife (bio-complex systems) or biologically-inspired Robotics approach now attracts wide interests as a new paradigm of science and engineering. Taking an example in the field of life science, the bio-complex systems approach is now increasing its importance as a basis for cellular molecular network analysis, such as to clarify the cancer progression or to give a guiding principle for reprogramming of cells/tissues in regeneration medicine (iPS cells). Furthermore, study of "synthetic biology" is now developed in the attempt to synthesize life in wetware or re-design existing, natural biological systems (bacteria) for useful purposes

Also in the biologically-inspired robotics field, rapid progress in various types of robot systems has been remarkable such as bipedal humanoid, multi-agent robots. Also in real world, nursing care robot is gradually being in practice. Furthermore, in wider sense, studies are remarkably advancing in the field of "molecular robots", small DNA-based platform which identify receptors in cell surface and target, more efficiently, the cells causing diseases to achieve drug-like function within human body.

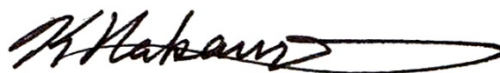
These examples show the Alife and biologically-inspired Robotics approach is very promising and may exert a wide influence on the effort to develop a new paradigm for next generation of science and engineering. We hope this symposium becomes a forum for exchange of the ideas of the attendants from various fields, who are interested in the future possibility of Alife and biologically-inspired Robotics approach. I am looking forward to meeting you in Beppu, Oita.



Kazushi Nakano

Program Chair

Professor, the University of Electro-Communications

A handwritten signature in black ink, appearing to read 'K. Nakano', followed by a long horizontal flourish.

On behalf of the program committee, it is my great pleasure and honor to invite you all to the Nineteenth International Symposium on Artificial Life and Robotics (AROB 19th 2014).

In organizing the AROB symposium, we are in debt to Japanese academic associations such as SICE, RSJ, IEEJ, EIC, ISCIE and JSOM. I would like to express my sincere thanks to all of those who make this symposium possible.

The Alife or biologically-inspired ROBotics approach, needless to say, now attracts strong and sustained interests as a new paradigm of science and engineering. The research and development themes of the AROB, including the topics from artificial brain research to visualization technology, are of extreme importance to be expected to not a little to contribute to revival of Japan as well as to contribute to the world of academia.

This symposium consists of 2 plenary talks, 1 special session, and 35 technical sessions including 17 organized sessions and poster session. The presented and selected papers will be published in the international journal: Artificial Life and Robotics from Springer.

I would like to take this opportunity to thank again the members of Program Committee and the AROB Secretariats, and all the participants of the AROB 2014.

Welcome to Beppu, Oita and enjoy AROB 2014.