

### Information for Authors

Prospective authors should submit a single page (300 to 500 words) abstract in the technical topic areas. The official language of ISABMEC 2006 is English. The abstract must include the paper title, author's name, organizational affiliation, address and e-mail address. In the abstract, authors should describe original results with technical issues to be discussed and/or methods used for analysis. We strongly encourage sending the abstract via e-mail, with no attachments, to the address shown below. If e-mail is not accessible, send via fax or mail your abstract to the address below.

### Important Deadlines

Abstract: March 15, 2006

Acceptance: April 15, 2006

Full papers: May 1, 2006

### Abstract Submission

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### Other Supporting Organizations (expected)

The Japan Society of Mechanical Engineer, The Zoological Society of Japan, The Biophysical Society of Japan, The Robotics Society of Japan, The Japan Society for Aeronautical and Space Sciences, The Japanese Society of Scientific Fisheries, The Marine Acoustics Society of Japan, The Japan Society of Naval Architects and Ocean Engineers, Japanese Society of Bio-Logging Science.

### Organizing Committee

Shinji Kamimura, Chairman, The University of Tokyo, Japan

Naomi Kato, Co-Chairman, Osaka University, Japan

Joseph Ayers, Co-Chairman, Northeastern University, USA

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Hao Liu, Co-Chairman, Chiba University, Japan

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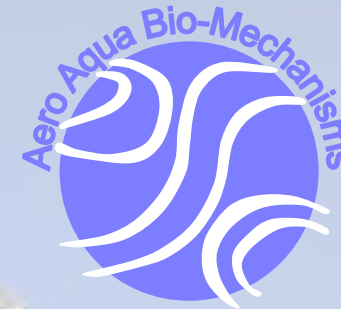
Shinichiro Ito, Secretariat, The National Defense Academy, Japan

## 2<sup>nd</sup> Announcement and

# Call for Papers

## The Third International Symposium on Aero Aqua Bio-Mechanisms

### ISABMEC 2006



### July 3-7, 2006

### Okinawa Convention Center Ginowan, Okinawa, Japan



Supported by

JSPS, ONR Global, AOARD, ITC-PAC ARO

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**The Third International Symposium  
on  
Aero Aqua Bio-Mechanisms  
(ISABMEC 2006)**

**CALL FOR PAPERS**

The Study Group of Aero Aqua Bio-Mechanisms (ABMECH), Osaka University, University of California Los Angeles (UCLA) and Northeastern University Marine Science Center (NUMSC) are organizing the Third International Symposium on Aero Aqua Bio-Mechanisms (ISABMEC 2006). The symposium will be held on 3–7 July in 2006 at Okinawa Convention Center in Ginowan-city, Okinawa, Japan. Original papers on the theme of this symposium are invited for submission.

**Background**

In 1997, the study group of Aqua Bio-Mechanisms (ABMECH) was established in Japan. The goals of this group are: first, to understand the mechanisms that enable flying and swimming animals to move effectively and efficiently in their environments, and second, to reveal the characteristics of their structures, functions and behaviors. Based upon this information we plan to develop novel machines and vehicles that mimic or emulate natural motions in environmentally benign ways.

To encourage broad participation in these interdisciplinary fields of basic science and applied engineering, ABMECH has previously organized the 1st and the 2nd International Symposia on Aqua Bio-Mechanisms in Honolulu in 2000 and 2003, respectively. Over 70 biologists and engineers participated from Japan, the U.S.A. and five other countries. Programs included oral and poster presentations as well as several keynote speeches. The symposia provided many opportunities for networking between biologists and engineers.

We are now preparing the Third International Symposium on Aero Aqua Bio-Mechanisms (ISABMEC 2006). “Aqua Bio-Mechanisms” has been renamed “Aero Aqua Bio-Mechanism” hoping to further expand our group to those studying various types of organisms and machineries under aerodynamic circumstances. We believe that the studies on biomechanisms and bioengineering to be presented will have significant

impacts on the future development of autonomous swimming and flying systems. The symposium will also provide a good opportunity for you to visit Okinawa, one of the main prefectures now actively supporting marine science. A project that has produced a prosthetic tail fluke for an injured bottlenose dolphin will be a major feature of an excursion to the Okinawa-Churaumi Aquarium.

**Aims and Scope**

ISABMEC 2006 will provide participants with active presentations and interdisciplinary discussions between biologists and engineers interested in autonomous locomotor systems in fluid environments in a wide size range of animals, from microscopic flagellated microorganisms or flying small insects, to large marine mammals.

**Topics**

- Bio-fluid dynamics in
  - animal locomotion
  - robotics
  - sport sciences
- Physiological aspects in
  - swimming and flying
  - locomotion mechanics and related biomaterials
  - neural regulation
  - bio-sensing and location control
- Biomimetics in
  - underwater vehicles
  - aero vehicles
  - artificial materials and actuators

**Keynote Speakers (expected):**

- Dr. Joseph Ayers (Northeastern University, USA)
- Dr. Rudolf Bannasch (Technical University Berlin, Germany)
- Dr. Barry Bixler (Honeywell Engines and Systems, USA)
- Dr. Malcolm S. Gordon (University of California Los Angeles, USA)
- Dr. Hao Liu (Chiba University, Japan)
- Dr. Baku M. Nagai (University of the Ryukyus, Japan)
- Dr. Senzo Uchida (Okinawa-Churaumi Aquarium)
- Dr. Takashi Yokoi (Bridgestone, Japan)