
***ADVANCED ROBOTICS* Call for Papers**

Special Issue on New Actuators for Robot Systems

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Actuator is one of the most important key elements for robots. Lightweight, compact, powerful, efficient and well-controllable actuators are essential for all kinds of robots. It also has a great potential for new robot applications; 1. micro actuators realizing inspection robots/ invasive medical robots/ micro flights/ cell handling manipulators, 2. nano-positioning actuators realizing probe microscopes/ atom-handling tools, 3. MEMS actuators realizing various kinds of robot sensors, 4. soft artificial muscles realizing human-support robots/ bio-mimetic robots, 5. power actuators realizing rescue robots/ construction robots, and 6. actuators in ultimate environments realizing robots in nuclear plants/ medical robots in MRI/ space robots, etc.

This special issue will present recent advancements in research and development on actuators and their related technologies including energy storage, transmission mechanisms and control. Papers on all aspects of robot actuators are invited, including but not limited to the following topics:

- ◆ Electric actuators,
- ◆ Pneumatic/hydraulic actuators,
- ◆ Solid actuators,
- ◆ Soft artificial muscles,
- ◆ Fundamental researches on functional materials, simulation and design methods for new actuators
- ◆ Reduction gear mechanisms,
- ◆ Robot application realized by novel actuator

Submission: **Pdf format file** of the complete manuscript should be sent by September 30, 2009 to the office of Advanced Robotics, the Robotics Society of Japan through our homepage (www.advanced-robotics.org). Sample form of the manuscript is available at the homepage, too. Additionally, please send the same file to Prof. Koichi Suzumori (suzumori@sys.okayama-u.ac.jp), and Prof. Satoshi Tadokoro (tadokoro@rm.is.tohoku.ac.jp) for the confirmation.