
ADVANCED ROBOTICS **Call for Papers**

***Special Issue on Humanoid Robotics — from
Back-to-basics to Cutting-edge***

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Potential usefulness of humanoid robots has been acknowledged through continual efforts by many researchers and engineers. Obviously, it is one of the biggest challenges in robotics to implement human-like machines not only in the aspects of appearance but of functionality. Cutting-edge technologies of mechatronics, control, information process and system integration should be invested based on a solid support of physics and mathematics. Although the basic mathematics of the humanoid robotics has not been fully established yet, many key aspects such as floating-base dynamics, redundancy and discontinuous mechanics have been studied by many pioneers, which led to modern products. This special issue solicits papers that provide broad knowledge related to the humanoid robotics, which includes, but is not limited to

- Kinematics and dynamics computation for human-formed mechanisms
- Motion planning of humanoid robots
- Control and state estimation of humanoid robots
- Mechanisms and mechanical designs for humanoid robots
- Humanoid-oriented actuator and sensor components
- Integration techniques for large-scale humanoid systems

Submission: The full-length manuscript (either PDF file or MS word file) should be sent by **January 30, 2020** to the office of Advanced Robotics, the Robotics Society of Japan through the on-line submission system of the journal (<https://www.rsj.or.jp/AR/submission>). Sample manuscript templates and detailed instructions for authors are available at the website of the journal.