



---

## **ADVANCED ROBOTICS    Call for Papers**

---

# ***Special Issue on Artificial Intelligence and Machine Learning for Robotic Manipulation***

Co-Editors:       **Prof. Akihiko Yamaguchi** (Tohoku University, Japan)  
                         **Prof. Takamitsu Matsubara** (NAIST, Japan)  
                         **Prof. Olivier Kroemer** (CMU, USA)  
                         **Dr. Nikolaus Vahrenkamp** (KIT, Germany)  
                         **Prof. Kensuke Harada** (Osaka University, Japan)

Publication in Vol. 33, No. 21 (November 2019)

### **SUBMISSION DEADLINE: 31 January 2019**

Artificial intelligence and machine learning have received a large amount of attention in the last few years due to the remarkable advancements made by deep learning technology. Artificial intelligence and machine learning have also become an integral research area in robotic manipulation, allowing robots to adapt to new situations and operate more autonomously in unstructured environments. As a result, researchers from academia and various industries are now working to develop the next generation of intelligent robotic applications. Emphasis of the special issue will be given to “novel algorithms, theories and their applications” of artificial intelligence and machine learning used for robotic manipulation.

The topic of the special issue includes, but are not limited to

- Manipulation Planning
- Optimization and Dynamic Programming in Manipulation
- Multi-fingered Manipulation
- Simulation of Manipulation
- Visual Feedback in Manipulation
- Assembly Tasks
- Deep Learning for Perception in Manipulation
- Deep Reinforcement Learning in Manipulation
- In-hand Manipulation
- Transfer and Meta Learning for Manipulation
- Hybrid System Modeling for Manipulation
- Learning Error Detection during Manipulation
- Tactile Perception and Learning in Manipulation
- Cognitive Approaches to Manipulation
- Factory Automation with Manipulation Technolog

*Submission:* The full-length manuscript (either PDF file or MS word file) should be sent by **January 31, 2019** to the office of Advanced Robotics, the Robotics Society of Japan through the homepage of Advanced Robotics (<http://www.rsj.or.jp/AR/submission>). Sample form of the manuscript as well as the Instruction for Authors is available at the homepage.