

Proposal of special session

Prof. Masahiro Oya, Kyushu Institute of Technology

Special session Title : Control of mechatronic systems

Theme of the session:

There are many kinds of mechatronic systems. In each mechatronic system, we need to design a special controller so that we can move the system skillfully. To achieve skillful movement, mechatronic engineers should know many kinds of control design. For this reason, in this session, we aim to introduce many kinds of intelligent control design schemes for mechatronic systems.

List of paper titles:

1. **paper title:** Digital Resolved Acceleration Control of Underwater Robot with Multiple Manipulators

Authors: Shinichi Sagara (Kyushu Institute of Technology), Radzi Bin Ambar (Kyushu Institute of Technology)

Corresponding author: Shinichi Sagara sagara@cntl.kyutech.ac.jp

2. **paper title:** Particle Predictive Control of Quad-copter

Authors: Kento SHIMADA, Takeshi NISHIDA (Kyushu Institute of Technology)

Corresponding author: Takeshi NISHIDA nishida@cntl.kyutech.ac.jp

3. **paper title:** A Robust Controller with Integral Action for Underwater Vehicle-Manipulator Systems Including Thruster Dynamics

Authors: Yuichiro Taira (Sojo University), Shinichi Sagara (Kyushu Institute of Technology), Masahiro Oya (Kyushu Institute of Technology)

Corresponding author: Yuichiro Taira ytaira@mec.sojo-u.ac.jp

4. **paper title:** Control Scheme to Improve Ride Comfort for Four-Wheel Vehicles
Authors: Y Keisuke Inomata (Kyushu Institute of Technology), Yasutaka Yoshihara (Kyushu Institute of Technology), Katsuhiro Okumura (Fukuoka Industrial Technology Center) and Masahiro Oya (Kyushu Institute of Technology)
Corresponding author: Masahiro Oya oya@cntl.kyutech.ac.jp

5. **paper title:** Transhumeral Prosthesis Prototype with 3D Printing and sEMG-Based Control System
Authors: Teppakorn Sittiwanchai, Shinichi Inoue, Jun Kobayashi (Kyushu Institute of Technology)
Corresponding author: Jun Kobayashi jkoba@ces.kyutech.ac.jp

6. **paper title:** Experimental Study on Oscillation Control of a Contact Scanning Scanners System
Authors: Hideki Wada (Shin-Nippon Nondestructive Inspection Co.), Keita Yamamoto (Kyushu Institute of Technology), Katsuhiro Okumura (Fukuoka Industrial Technology Center) and Masahiro Oya (Kyushu Institute of Technology)
Corresponding author: Masahiro Oya oya@cntl.kyutech.ac.jp