

OS13 Robotics and mechatronics

**OS13-01** Visual odometry equipment of mobile robots based on moving-image processing of road surface for inspecting outdoor underground facilities

Toya Kaneko, Takuya Kosakai, Yoshikazu Ebina, Masato Mizukami and Shoji Mochizuki

Muroran Institute of Technology

**OS13-03** Novel Force Decoupling Admittance Control of Linear Motors for Grinding Applications

Jietian Li, Beichen Ding, Yu Yin and Han Huang

Sun Yat-sen University

**OS13-04** Design of inchworm stick-slip composite piezoelectric linear motor

Mengtao Luo, Yuguo Cui, Yiling Yang, Rongxi Liang and Xing Tang

Ningbo University

**OS13-05** Development of a Bearing Hub Unit Having Embedded Tri-Axis Force Sensor Functionality

Daisuke Matsuura, Yudai Baba and Tsune Kobayashi

Tokyo Institute of Technology

**OS13-06** Modelling and control of the occlusal force for simulating voluntary chewing by a robot

Bangxiang Chen, Jaspreet S. Dhupia and Weiliang Xu

The University of Auckland

**OS13-08** Robot grasping based on deep learning and three-dimensional information

Bang-Wei Yu, Yu-Ling Liu and Hung-Yin Tsai

Department of Power Mechanical Engineering, National Tsing Hua University

**OS13-09** Pneumatic robot arm for assisting in power line maintenance

Kouga Narita, Hiroaki Seki, Tokuo Tsuji, Tatsuhiro

Hiramitsu, Takehiro Nagata, Kazushige Matsumoto and Taiki Imada

**OS13-11** Sensorless rotor positioning for a bearingless slice doubly salient permanent magnet motor

Zeqiang He and Tadahiko Shinshi

Tokyo Institute of Technology

**OS13-12** High-speed coating inspection robot for suspended box-shaped objects

Shota Iwasaki, Hiroaki Seki, Tokuo Tsuji and Tatsuhiro

Hiramitsu

Kanazawa University

**OS13-13** Displacement of a mechanism using piezoelectric element and electropermanent magnet  
Takeshi Inoue, Takato Sakai, Akihiro Torii, Suguru Mototani and Kae Doki  
Aichi Institute of Tehcnology

**OS13-14** Design and Evaluation of Robotic End-effectors for Precise Manipulation of Biological Samples  
Elia Martinelli, Hung-Ching Lin, Saúl Alexis Heredia Pérez, Kanako Harada and Andreas Archenti  
KTH Royal Institute of Technology

**OS13-15** Drone flight path generation with LLM  
Atori Ikeyama, Sho Yamauchi and Keiji Suzuki  
Future University Hakodate