

Room 6**Session 3-6-1: OS13
Robotics and mechatronics I**

OS13-01 Visual odometry equipment of mobile robots based on moving-image processing of road surface for inspecting outdoor underground facilities
Toya Kaneko, T. Kosakai, Y. Ebina, M. Mizukami and S. Mochizuki

OS13-03 Novel Force Decoupling Admittance Control of Linear Motors for Grinding Applications
Jietian Li, Beichen Ding, Yu Yin and Han Huang

OS13-05 Development of a Bearing Hub Unit with Embedded Tri-Axis Force Sensor
Daisuke Matsuura, Yudai Baba and Tsune Kobayashi

OS13-08 Robot grasping based on deep learning and three-dimensional information
Bang-Wei Yu, Yu-Ling Liu and Hung-Yin Tsai

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

**Session 3-6-2: OS13
Robotics and mechatronics II**

OS13-11 Sensorless rotor positioning for a bearingless slice doubly salient permanent magnet motor
Zeqiang He and Tadahiko Shinshi

OS13-12 High-speed coating inspection robot for suspended box-shaped objects
Shota Iwasaki, Hiroaki Seki, Tokuo Tsuji and Tatsuhiro Hiramitsu

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

OS13-04 Design of inchworm stick-slip composite piezoelectric linear motor
Mengtao Luo, Yuguo Cui, Yiling Yang, Rongxi Liang and Xing Tang

OS13-14 Design and Performance of Surgical Robotics End-effectors for Precise Manipulation of Biological Samples.
Elia Martinelli, H. Lin, S. Pérez, K. Harada and Andreas Archenti

**Session 3-6-3: OS17
Mechano-photonics engineering and optical applications I**

OS17-04 Effect of fabrication defects on terahertz wave control characteristics of dielectric metamaterials operating in the terahertz region
Kohei Chiba, Taiyu Okatani, Naoki Inomata and Yoshiaki Kanamori

OS17-05 Development of deformable mirror with bonded multiple piezoelectric substrates for high spatial frequency shape control
Maaya Kano, Takato Inoue, Junya Yoshimizu, Toma Ueyama and Satoshi Matsuyama

OS17-06 Study on AI-driven Optical Distribution Measurement without Forming Images - Development of Rapid Phase Distribution Measurement Method-
Ryuuma Akao, Y. Guan, S. Masui, S. Kadoya, M. Michihata and S. Takahashi

OS17-07 Numerical analyses of trapping behavior of contour-tracking optical tweezers
Ryohei Omine, S. Masui, S. Kadoya, M. Michihata and S. Takahashi

OS17-08 Three dimensional measurement of hand scraped surface by an oblique incident interferometer using a near infrared laser source
Takumi Yamagishi, So Ito, Kimihisa Matsumoto and Kazuhide Kamiya

**Session 3-6-4: OS17
Mechano-photonics engineering and optical applications II**

OS17-09 In-situ measurement of photoluminescence and electroluminescence of porous silicon under electrochemistry oxidation
Lianhua Jin, Kota Fukumoto and Bernard Gellozo

OS17-11 Development of ultrathin deformable mirror for wavelength-variable sub-10 nm X-ray focusing
Toma Ueyama, T. Inoue, J. Yoshimizu, M. Kano, K. Kanazaki, R. Minamisawa and S. Matsuyama

OS17-12 Analysis of Thermally Excited Evanescent Waves on Dielectrics by a Spectroscopic System
Wentao Zhou, Ryoko Sakuma, Kuan-Ting Lin and Yusuke Kajihara

OS17-13 Development of ultraprecise X-ray multilayer mirrors for nanometer-resolution phase-contrast imaging
Kota Shioi, J. Yamada, G. Yamaguchi, D. Toh, K. Yamaguchi, M. Yabashi and Y. Sano

OS17-14 A femtosecond laser confocal probe for multi-dimensional measurement
Chen Li, Ryo Sato, Hiraku Matsukuma and Wei Gao