

IS1(6)	Precision Control Methodologies for Next Generation Mechatronic Systems	March 2nd, Sat. PM2 14:40-16:40 Room-A
	Chairs: Prof. Shota Yabui (Tokyo City University)	Prof. Juan Padron(Nagaoka University of Technology)
IS1-1	Increased Wind Noise by Active Noise Cancellation Headphones	Takeru Watanabe and Takenori Atsumi (Chiba Institute of Technology, Japan)
IS1-2	Development of Precise Control System for Magnetic Levitation Stage with Z-Assist System	Takanori Kato (Hitachi, Ltd., Japan)
IS1-3	Control Design Strategy for Coarse-Fine Motion Control in Dual-Input-Single-Output System	Shota Yabui (Tokyo City University, Japan); Takenori Atsumi (Chiba Institute of Technology, Japan)
IS1-4	Noncausal Nonlinear Feedforward Controller Design for Boost Converter Voltage Trajectory Tracking	Wataru Ohnishi and Shota Miyoshi (The University of Tokyo, Japan); Takafumi Koseki (University of Tokyo, Japan); Motoki Sato (Toyo Denki Seizo K. K., Japan)
IS1-5	Effect of Limited Pole Placement Method in Collision Mitigation Operation Using Initial Value Compensation	Yoshiyuki Urakawa, Kosei Futemma and Sirichai Ngamlamai (Nippon Institute of Technology, Japan)
IS1-6	A Design of Feedforward Input for PMSM Incorporating Shrinking-Horizon Final State Control	Masayasu Suzuki and Mitsuo Hirata (Utsunomiya University, Japan)
IS2(4)	Data-driven based Novel/Advanced Control for Nonlinear Mechanical Systems	March 2nd, Sat. AM 11:00-12:40 Room-A
	Chairs: Prof. Shihua Li (Southeast University)	Prof. Jing Na (Kunming University of Science and Technology)
IS2-1	Modeling and Nonlinear Control for Antagonistic Pneumatic Artificial Muscles Subject to Composite Disturbances and Uncertain Dynamics	Changda Fan, Tong Yang and Qingxiang Wu (Nankai University, China); Yougang Sun (Tongji & Institute of Rail Transit, China); Ning Sun (Nankai University, China)
IS2-2	A Nonlinear Reset ADRC for PMSM Speed Regulation System with Overcoming the Overshoot	Shaohua Wang, He Gan and Ying Luo (Huazhong University of Science and Technology, China); YangQuan Chen (University of California, Merced, USA)
IS2-3	Distributed State Estimation with Event-Triggered Communication and Stochastic Measurement Transmission via Wireless Sensor Networks	Gengen Li, Chunxi Yang, Xiufeng Zhang and Yashan Xing (Kunming University of Science and Technology, China); Jing Na (University of Bristol, United Kingdom (Great Britain)); Shichang Han (Kunming University of Science and Technology, China)
IS2-4	Composite Finite-Time Control of Electromechanical Actuator with Integrated Friction Compensation and Uncertainties Attenuation	Yuan Jiang (Southeast University, China); Jun Yang (Loughborough University, United Kingdom (Great Britain)); Xinming Wang, Zuo Wang and Shihua Li (Southeast University, China)
IS3(5)	Data Utilization Control for Industrial Applications	March 3rd, Sun. AM 11:00-12:40 Room-A
	Chairs: Dr. Issei Takeuchi (Tosho)	Prof. Sho Sakaino (University of Tsukuba)
IS3-1	Controlling Torque and Acceleration in Geared Flexible Transmissions with Backlash Using Torque Sensors: Advantages, Limitations and Challenges	Juan Padron (Nagaoka University of Technology, Japan)
IS3-2	Optimization of Path Planning of Bulldozer by Deep Reinforcement Learning with Sediment Simulator	Yutaka Uchimura (Shibaura Institute of Technology, Japan)
IS3-3	Practical Implementations of Bilateral Control-Based Imitation Learning at iREX2023	Sho Sakaino (University of Tsukuba, Japan)
IS3-4	Four-Channel Bilateral Control with Neural-Network-Based Forward Kinematics Model for Metal Spinning Process	Yoshiyuki Hatta and Kazuaki Ito (Gifu University, Japan)
IS3-5	A Design Method for Force Transmission/Feedback Controller Based on Admittance Control	Yuki Nagatsu (Takushoku University, Japan)

SS1(4)	Motion Control for Aeronautics and Astronautics Application	March 4th, Mon. AM 11:00-12:40 Room-B
	Chairs: Prof. Kikuko Miyata (Meijo University)	Prof. Susumu Hara (Nagoya University)
SS1-1	Vibration Control of Multicopters in Vortex Regions of Building Wind	Teruya Kojima and Takenori Atsumi (Chiba Institute of Technology, Japan)
SS1-2	Experimental System Analysis for Aerial Retrieval Utilizing Fixed-Wing UAV —Evaluation of UFSC Trajectory Generation Under Wind Disturbance—	Kandai Uchida, Yuzuki Yamaoka, Susumu Hara and Koichi Yamasaki (Nagoya University, Japan)
SS1-3	Improvement of Tracking Performance of a Multicopter Flying in a Low-Ceiling Space Using RCBoDE Plot	Sota Endo and Takenori Atsumi (Chiba Institute of Technology, Japan)
SS1-4	Experimental Investigations of Temperature and Vacuum Properties in Solid Lubricated Strain Wave Gearing for Space Applications	Yohei Hashino, Tsuyoshi Aramaki and Kenta Seki (Nagoya Institute of Technology, Japan); Kikuko Miyata (Meijo University, Japan); Makoto Iwasaki (Nagoya Institute of Technology, Japan)
SS2(4)	Power Electronics for Enhancing Motion Control Technology	March 3rd, Sun. AM 11:00-12:40 Room-B
	Chairs: Prof. Kenji Natori (Chiba University)	Prof. Toshiyuki Fujita (The University of Tokyo)
SS2-1	Proposal on Connection of Air Conditioners to DC Bus for a Home Energy System Including Solar Cells and Batteries	Toshiyuki Fujita, Sakahisa Nagai and Hiroshi Fujimoto (The University of Tokyo, Japan); Michihiro Nakagawa and Naoya Yamashita (Daikin Industries LTD, Japan); Yoshiki Yasuda and Akio Yamagiwa (DAIKIN Industries, Ltd., Japan)
SS2-2	A Study of 10MHz Multisampling Deadbeat Control for PMLSM Drive System Using USPM Controller	Tomoki Yokoyama (Tokyo Denki University, Japan); Tomoyuki Shimono (Yokohama National University, Japan); Daisuke Hiroe, Yuto Ushigome and Kakeru Innami (Tokyo Denki University, Japan)
SS2-3	Confirmation of Wave Power Generation Characteristics Using Fourth Helical Motor Under Maximizing Regenerative Efficiency Control	Ryosuke Kihira and Masato Koyama (Mie University, Japan)
SS2-4	A Consideration of Dead-Time Compensation Method Focusing on Voltage Phase Characteristics of Three-Phase Inverter	Makoto Chiba, Kenji Natori and Yukihiro Sato (Chiba University, Japan)
SS3(4)	Intelligent Sensing and Control Applications for Collaboration of Human, Artificial, and Virtual Systems	March 2nd, Sat. AM 11:00-12:40 Room-B
	Chairs: Prof. Koichi Hidaka (Tokyo Denki University)	Prof. Takahiro Nozaki (Keio University)
SS3-1	Human Motion Reproduction Method with Machine Learning for Calligraphy Robot	Hirotsu Otake and Naoki Motoi (Kobe University, Japan)
SS3-2	Visualization of Stroke Data for Motion Analysis by Using Pen Tablet	Shoma Ichianagi, Tomoyuki Shimono and Moe Kobayashi (Yokohama National University, Japan); Masaya Nakata (The University of Electro-Communications, Japan); Mayuko Izumi (Yokohama National University, Japan); Tadakuni Tsubota (Wacom Co. Ltd., Japan); Taisei Fujisawa (Yokohama National University, Japan); Osamu Uehara (Wacom Co. Ltd., Japan)
SS3-3	Development of Measurement Method for Limb Tip Output During Muscle Relaxation	Yuki Kanai and Tomoyuki Shimono (Yokohama National University, Japan); Kenichi Sugawara, Tomotaka Suzuki, Yuma Takenaka and Ryoki Sasaki (Kanagawa University of Human Services, Japan)
SS3-4	Self-Localization with Weighting Function for Particle Filter Based on Inflection Point of Likelihood	Koichi Hidaka, Prof and Hayate Suzuki (Tokyo Denki University, Japan)

SS4(6) Advanced motion control methods for modern mechatronics systems		March 2nd, Sat. PM2 14:40-16:40 Room-B
Chairs: Prof. Junxiao Wang (Zhejiang University of Technology)		
SS4-1	Adaptive-Back-Stepping-Based Anti-Swing Control Method Based on Rotary Crane	Prof. Huiming Ouyang (Nanjing Tech University) Zhu Hongjie, Huimin Ouyang, Huan Xi and Hui Yi (Nanjing Tech University, China)
SS4-2	Active Disturbance Rejection Control for Offshore Cranes Based on Differential Flatness and Fuzzy Logic	Zhaoqi Li and He Chen (Hebei University of Technology, China); Yinan Wu (Nankai University, China); Haiyan Qiang (Shanghai Maritime University, China)
SS4-3	Adaptive Variable-Gain Sliding Mode Control of Robot Manipulators with Full State Constraints	Dong-Dong Zheng and Yingqi Guo (Beijing Institute of Technology, China); Kai Guo (Shandong University, China); Yufei Liu (Harbin University of Science and Technology, China)
SS4-4	Prescribed-Time Robust Repetitive Learning Control for PMSM Servo Systems with Nonparametric Uncertainties	Yaqian Li, Qiang Chen and Huihui Shi (Zhejiang University of Technology, China); Shuzong Xie (Zhejiang University, China); Shubo Wang (Qingdao University, China)
SS4-5	Homography-Based Visual Servoing for Eye-In-Hand Robot Control with Adaptive Depth Estimation	Qiwen Fang, Xian Wang, Haoran He, Faxiang Zhang and Yingbo Huang (Kunming University of Science and Technology, China); Jing Na (University of Bristol, United Kingdom (Great Britain))
SS4-6	Position Sensorless Control Strategy of IPMSM Based on Enhanced High Order Generalized Integrator Flux Observer	Kailin Hu, Ying Bo and Junxiao Wang (Zhejiang University of Technology, China)

JIA-to-SAMCON		March 3rd, Sun. PM2 14:40-16:40 Room-B
Chairs:		
JIA-1	Motion Generation Based on Contact State Estimation Using Two-Stage Clustering	Kazuki Takeuchi (Saitama University, Japan); Sho Sakaino (University of Tsukuba, Japan); Toshiaki Tsuji (Saitama University, Japan)
JIA-2	Fundamental Study on Adaptive Shock Response Control for Emergency Landing of UAVs and Its Experimental Investigation	Pengcheng Li (Nagoya University, Japan); Ryuki Sato (The University of Electro-Communications, Japan); Masaki Hasegawa (Brother Industries, Ltd., Japan); Susumu Hara (Nagoya University, Japan)
JIA-3	Inverter Air Conditioner Promotion by Developing a High Power Density Motor Drive System	Nobuo Hayashi (Daikin Industries, LTD., Japan)
JIA-4	Σ -X Series: AC Servo Drive for Achievement of Digital Solution	Ryohei Kitayoshi, Yasufumi Yoshiura, Yasuhiko Kaku

TT1(6)	Sensing and Its Applications Chairs: Prof. Hiroshi Igarashi (Tokyo Denki University)	March 4th, Mon. PM2 14:40-16:40 Room-B Prof. Satoshi Komada (Mie University)
TT1-1	Monocular Camera and Line Laser-Based Real-Time Multi-Obstacle Distance Measurement System	Tomu Kodama (Aoyama Gakuin University, Japan); Taku Itami (Aoyama Gakuin University & College of Science and Engineering, Japan); Jun Yoneyama (Aoyama Gakuin University, Japan)
TT1-2	Surface Roughness Identification Based on Heat Flow Sensing Using One-Point Robot Finger Pad	Yukiko Osawa (National Institute of Advanced Industrial Science and Technology); Taro Fukazawa and Masayuki Murata (National Institute of Advanced Industrial Science and Technology, Japan)
TT1-3	Environmental Impedance Estimation Based on Confidence Score of Object Detection Model	Sora Yamaguchi, Seiichiro Katsura and Yuki Tanaka (Keio University, Japan)
TT1-4	Re-Identification Using Depth Information for Multiple People Tracking in Thermal Images	Kimitaka Taki and Katsuya Kondo (Tottori University, Japan)
TT1-5	Position Control of Ankle Joint Using Functional Electrical Stimulation	Kenta Kara and Seiichiro Katsura (Keio University, Japan)
TT1-6	ROI Reconstruction for Reducing Dose in CBCT by Adaptive Irradiation Angular Interval and Interpolation	Kentaro Hashimoto (Tottori University, Japan); Yasushi Ono (Tottori University & Tottori University Hospital, Japan); Katsuya Kondo (Tottori University, Japan)
TT2(5)	Actuation and Automotive Systems Chairs: Prof. Yuki Yokokura (Nagaoka University of Technology)	March 2nd, Sat. AM 11:00-12:40 Room-C Prof. Wataru Ohnishi (The University of Tokyo)
TT2-1	Verification of Improved Contact Motion with Lower Moment of Inertia by Using In-Link Actuators	Kazuma Morikawa and Seiichiro Katsura (Keio University, Japan)
TT2-2	Clutch Normative Control Based Shockless Re-Acceleration for Hybrid Electric Vehicles in Coasting State	Hikaru Sosaka, Yuki Yokokura and Kiyoshi Ohishi (Nagaoka University of Technology, Japan); Akira Yamaguchi, Yoshiyuki Shinya and Takashi Hatano (Mazda Motor Corporation, Japan)
TT2-3	A Consideration of Vibration Suppression Control of Parallel Shaft e-Axle Using Phase Stabilization Control Based on System Identification	Michi Oda (The University of Tokyo & Ono Sokki Co., Ltd., Japan); Sakahisa Nagai and Hiroshi Fujimoto (The University of Tokyo, Japan); Hidemasa Fujita, Kota Yamamoto and Tohru Urano (Mitsubishi Motors Corporation, Japan); Koji Satoh, Kana Mizoguchi and Naoki Takizawa (Ono Sokki Company Limited, Japan)
TT2-4	Frequency Response Based Track Following Controller Design in Dual Stage Actuator HDD Using Sensitivity Decoupling Structure	Junpei Morimoto, Kazuhiro Yubai, Daisuke Yashiro and Satoshi Komada (Mie University, Japan)
TT2-5	Application of Deep Reinforcement Learning to Decentralized Control of Traffic Signals Considering Fairness in a Road Traffic Network Including Intersections Without Traffic Signals	Shogo Shirasaka (Tokyo University of Science, Japan); Naoki Kodama (Meiji University, Japan); Taku Harada (Tokyo University of Science, Japan)
TT3(6)	Control Theory and Its Applications Chairs: Prof. Tadanao Zanma (Chiba University)	March 4th, Mon. PM2 14:40-16:40 Room-A Prof. Shota Yabui (Tokyo City University)
TT3-1	Compensation of Residual Vibration in Track-Seeking Control of Hard Disk Drive Using ZPETC and Sampled Data Polynomial	Hiroki Hoki and Takenori Atsumi (Chiba Institute of Technology, Japan)
TT3-2	Force Estimation of Multi-DoF Manipulator Based on Virtual Environment Quarrier Using Gated Recurrent Unit	Yuki Tanaka and Seiichiro Katsura (Keio University, Japan)
TT3-3	Soft Sensor Design Method Using Experimental Data for Mechanical Systems with Coulomb Friction	Tokutaro Kitamura, Kazuhiro Yubai, Daisuke Yashiro and Satoshi Komada (Mie University, Japan)
TT3-4	Data Driven Controller Update of State Predictive Servo Systems for Linear Time-Delay Systems	Hiroki Kanda (The University of Electro-Communications, Japan)
TT3-5	A New Approach of Data-Driven Prediction and Control Directly Evaluated with Input	Miku Ikesawa and Osamu Kaneko (The University of Electro-Communications, Japan)
TT3-6	Investigation of Frequency-Shaped Final-State Control Design Focusing on Softening Spring Characteristics of Machine-Stand Vibration	Yuya Watanabe, Kenta Seki and Makoto Iwasaki (Nagoya Institute of Technology, Japan)

TT5-1(5)	Robotics and Mechatronics	March 3rd, Sun. AM 11:00-12:40 Room-C
	Chairs: Prof. Yuki Yokokura (Nagaoka University of Technology)	Prof. Daisuke Yashiro (Mie University)
TT5-1	Realization of Robust and Fast State Estimation Based on Instantaneous State Observer and Its Application	Junya Hasegawa, Akira Hamaguchi, Yuki Yokokura and Kiyoshi Ohishi (Nagaoka University of Technology, Japan); Yusuke Kawai (National Institute of Technology Ichinoseki College, Japan); Toshimasa Miyazaki (Nagaoka University of Technology, Japan)
TT5-2	Study on Real-Time Fault Detection System for Twin-Drive Ball Screw Sliders	Tetsuya Ojira and Kazuhiro Tsuruta (Kyushu Sangyo University, Japan)
TT5-3	Load Side Angle Control Using Backlash Model for Torsional Torque Estimation of Double Motor with Reduction Gear	Yuto Ikeda, Daisuke Yashiro, Kazuhiro Yubai and Satoshi Komada (Mie University, Japan)
TT5-4	Sensor-Integrated End-Effector for Process Monitoring of Tire Changer	Daiki Mori (University of Fukui, Japan)
TT5-5	In-Hand Manipulation Considering Disturbance Based on Modal Control	Aina Kojima, Shunichi Sakurai and Seiichiro Katsura (Keio University, Japan)
TT5-2(5)	Robotics and Mechatronics	March 4th, Mon. AM 11:00-12:40 Room-B
	Chairs: Prof. Naoki Motoi (Kobe University)	Prof. Yuki Nagatsu (Takushoku University)
TT5-6	Three-Dimensional Motion Mechanism with Tendon-Driven Gravity Compensation	Yusaku Kuroki and Seiichiro Katsura (Keio University, Japan)
TT5-7	Modeling of Ankle Joint Elastic Torque-Angle Characteristics Using Time-Varying Elastic Coefficient During Passive Plantar and Dorsiflexion	Hiroto Takai, Daisuke Yashiro, Kazuhiro Yubai and Satoshi Komada (Mie University, Japan); Kotaro Takeda (Fujita Health University, Japan)
TT5-8	Path Planning for Construction Machines by Pre-Modeling Soil Dynamics	Tatsuya Nakayama and Yutaka Uchimura (Shibaura Institute of Technology, Japan)
TT5-9	Self-Tuning Control of Boom Angular Velocity for Mobile Cranes in Consideration of Boom Oscillation Mode	Kazuma Mizuki (Tadano Ltd., Japan)
TT5-10	Construction of Grass Density Determination System Using Force Sensor for Flail Type Mowing System	Iwano Yuki (Fukui University of Technology, Japan)
TT6(5)	Human Interaction	March 4th, Mon. AM 11:00-12:40 Room-A
	Chairs: Prof. Daisuke Yashiro (Mie University)	Prof. Takahiro Nozaki (Keio University)
TT6-1	Sound Source Distance Estimation Using Two Microphones for People with Hearing Loss	Riku Endo and Akemi Matsuo (AoyamaGakuin University, Japan); Taku Itami (Aoyama Gakuin University & College of Science and Engineering, Japan); Jun Yoneyama (Aoyama Gakuin University, Japan)
TT6-2	Development of VR Bone Fragment Fixation Simulator for Sagittal Split Ramus Osteotomy with 3D Contact Pressure Analysis	Yuto Hirose (University of Yamanshi, Japan); Yoshiyuki Kagiya, Koichiro Ueki and Akinori Moroi (University of YAMANASHI, Japan); Norio Takeuchi (Hosei University, Japan); Yasumi Ito and Yoshiyuki Noda (University of Yamanashi, Japan); Yoshihiro Kuroda (University of Tsukuba, Japan); Shunsuke Yoshimoto (The University of Tokyo, Japan); Osamu Oshiro (Osaka University, Japan)
TT6-3	Comparison of Reproductive and Synchronous Controllers for Discrete-Event Physical Human-Robot Interaction	Tatsuya Akahoshi and Hisayoshi Muramatsu (Hiroshima University, Japan)
TT6-4	Application of a Learning Classifier System for Explaining Survival Prediction Results for Breast Cancer Data	Ryo Suzuki, Chika Matsushima and Taku Harada (Tokyo University of Science, Japan)
TT6-5	Design and Control of Tendon-Driven Soft Hand Exoskeleton: A Preliminary Study	Subhash Pratap (Mechanical Engineering, Gifu University & IIT Guwahati, India); Jyotindra Narayan (Imperial College London, United Kingdom (Great Britain) & Chair of Digital Health, University of Bayreuth, Germany); Yoshiyuki Hatta (Gifu University, Japan); Shyamanta Hazarika (IIT Guwahati, India); Kazuaki Ito (Gifu University, Japan)

P1A	March 2nd PM 13:50-14:20 Room-A [Shot-gun]	March 2nd PM 14:40-16:40 Foyer [Poster]
P1A-1	Study on Magnetic Elastomer for Application to Magnetic Adsorption Pads	Shimpei Iguchi and Hiroaki Kuwahara (Shibaura Institute of Technology, Japan)
P1A-2	Resonance Frequency Control of Four-Inertia System Using Virtual Spring Control	Taichi Nakamura (Nagaoka University of Technology, Japan)
P1A-3	Proposal and Basic Study of 4-DOF Parallel Link Mechanism with Torsional Motion Assist Function	Hiromasa Nozawa (Japan); Hiroaki Kuwahara (Shibaura Institute of Technology, Japan)
P1A-4	Cooperative Spatial Control of Human and Mobile Robot Using Overlooking System	Masaki Endo and Hiroaki Kuwahara (Shibaura Institute of Technology, Japan)
P1A-5	Continuous Robust Position Control of TSA with Variable Radius Cam	Masaki Saito (Keio University, Japan); Luc Vignolles (Keio University, France); Toshiyuki Murakami (Keio University, Japan)
P1A-6	Application of Motion Control for High-Precision Automatic Chamfering Machine in Gear Manufacturing Process	Kazuki Hayashi, Yoshiyuki Hatta and Kazuaki Ito (Gifu University, Japan); Kiyohiko Sakuraba (Kabutoyama Works Co. Ltd., Japan)
P1B	March 2nd PM 13:50-14:20 Room-B [Shot-gun]	March 2nd PM 14:40-16:40 Foyer [Poster]
P1B-1	Development and Evaluation Isolated Class- Φ 2 DC-DC Converter	Shiono Tomoya (Chiba Institute of Technology, Japan)
P1B-2	A Study of High-Frequency Power Supply for Plasma Discharge in Liquid	Atsushi Kosugi (Chiba Institute of Technology & Saitama Prefectural Koshigaya Sogo Gijutsu High School, Japan)
P1B-3	Preliminary Study of Control Methods for Heat Pump Cooling/Heating Systems for Typhoon Control	Rui Kimura and Yasutaka Fujimoto (Yokohama National University, Japan)
P1B-4	Data-Driven Control and Prediction for Automobile Steering Control System	Ryu Chang hyuk (The University of Electro Communications, Japan); Ryusei Yamamoto and Osamu Kaneko (The University of Electro-Communications, Japan)
P1B-5	Basic Study on Velocity Control in Wing Coordinate System Using Acceleration-Based Disturbance Observer for Tilt-Wing eVTOL	Takuma Katagiri (The University of Tokyo, Japan); Kentaro Yokota (Japan Aerospace Exploration Agency, Japan); Kota Fujimoto, Sakahisa Nagai and Hiroshi Fujimoto (The University of Tokyo, Japan)
P1B-6	Loop Shaping Method for DISO Systems with Consideration of Each Actuator Characteristic	Haruki Murakami and Shota Yabui (Tokyo City University, Japan)
P1C	March 2nd PM 13:50-14:20 Room-C [Shot-gun]	March 2nd PM 14:40-16:40 Foyer [Poster]
P1C-1	Classifying Hidden Object Using Hyperspectral Image	Nana Shirakashi and Yuko Ozasa (Graduate School of System Design and Technology, Tokyo Denki University, Japan)
P1C-2	Effect of Dimensionality Reduction on Hyperspectral Image Classification Using Multi-Layer Perceptron	Shu Yamamoto and Yuko Ozasa (Graduate School of System Design and Technology, Tokyo Denki University, Japan)
P1C-3	Evaluation of Generalization Performance in Road Surface Condition Classification with Hyperspectral Images	Yuri Otsuka and Junkei Okada (Graduate School of System Design and Technology, Tokyo Denki University, Japan); Takuma Kaneko (School of System Design and Technology, Tokyo Denki University, Japan); Yuko Ozasa (Graduate School of System Design and Technology, Tokyo Denki University, Japan)
P1C-4	Data Augmentation Approach for Pixel-Wise HSI Classification	Junkei Okada and Yuko Ozasa (Graduate School of System Design and Technology, Tokyo Denki University, Japan)
P1C-5	Pose Estimation of a Floating Bottle Cap by Parametric Eigenspace Method for Measuring Rainfall	Satoshi Yoshioka, Katsuya Kondo and Mitsuru Tsubo (Tottori University, Japan)
P1C-6	Study on Image Similarity Judgment Method by Grouping Processing for Waste-Printed Circuit Boards	Hikaru Shirai, Ryo Ohishi, Yoichi Kageyama and Shigeru Kawamura (Akita University, Japan); Kazune Sasaki (DOWA Technology, Japan); Keita Ogawa and Satoshi Nakagawara (DOWA Metals and Mining, Japan)
P1C-7	A Preliminary Study on Angular Velocity Detection with Magnet-Sensor by Jacobian Matrix for Ultra-Small Satellite	Hajime Saito (National Institute of Technology(KOSEN), Gunma College, Japan)

P2A	March 3rd PM 13:50-14:20 Room-A [Shot-gun]	March 3rd PM 14:40-16:40 Foyer [Poster]
P2A-1	Method for Human-Like Environment Contact Motion Using a Series Elastic Actuator	Helio Nonose and Yasumichi Aiyama (University of Tsukuba, Japan)
P2A-2	Reproduction of Explosive Charging Motion Compensated for Changes in Position of Hole by Using Depth Camera	Moe Horikoshi, Izumi Kotani, Takahiro Nozaki and Kazuki Yane (Keio University, Japan)
P2A-3	Optimal Trajectory Planning with Collision Avoidance for Industrial Robots Considering Energy and Time in Operation	Yusuke Toki, Naoki Mizuno and Makoto Iwasaki (Nagoya Institute of Technology, Japan)
P2A-4	Validating and Improving the Modeling of Wire Tension Direction of Walking Assistive Device with Single-Actuated Wire-Driven Mechanism	Tatsuya Okada, Masato Koyama and Satoshi Komada (Mie University, Japan)
P2A-5	Consensus Problem Based on Funnel Control Considering Obstacle Avoidance	Hiroki Kimura and A. Okuyama (Tokai University, Japan)
P2A-6	Gait Generation Based on Deep Reinforcement Learning in 4-Legged Robots Equipped with CPGs	Seiya Nishizawa and Atsushi Okuyama (Tokai University, Japan)
P2B	March 3rd PM 13:50-14:20 Room-B [Shot-gun]	March 3rd PM 14:40-16:40 Foyer [Poster]
P2B-1	Silent Speech Recognition Using Facial Surface EMG	Ryosuke Kimoto, Takashi Ohhira and Hideki Hashimoto (Chuo University, Japan)
P2B-2	Construction of a Multi-Sensor Synchronous Measurement System for Single-Finger Pressing Task	Katsuya Fujiwara (Akita University, Japan)
P2B-3	Development of VR Preoperative Planning System for Cup in Total Hip Arthroplasty with Color Map Assistance of Residual Bone Thickness	Shunsuke Fujiki (University of Yamanashi, Japan); Yoshiyuki Kagiyama (University of YAMANASHI, Japan); Yoshihiro Kuroda (University of Tsukuba, Japan); Shunsuke Yoshimoto (The University of Tokyo, Japan); Yasumi Ito and Yoshiyuki Noda (University of Yamanashi, Japan); Osamu Oshiro (Osaka University, Japan)
P2B-4	Mental Stress Induced with Key Swapping During Typing Tasks	Nan Bu (National Institute of Technology, Kumamoto College, Japan)
P2B-5	The Development of a New Exoskeleton Glove System for Rehabilitation Assistance of Spinal Cord Injury Patients	Kento Hirogaki (Gifu University, Japan); Subhash Pratap (Mechanical Engineering, Gifu University & IIT Guwahati, India); Yoshiyuki Hatta and Kazuaki Ito (Gifu University, Japan); Shyamanta Hazarika (IIT Guwahati, India)
P2B-6	Proposing an Environment for Analyzing Human Teaching Methods Using Trainee Model	Kota Kobayashi and Hiroshi Igarashi (Tokyo Denki University, Japan)
P2C	March 3rd PM 13:50-14:20 Room-C [Shot-gun]	March 3rd PM 14:40-16:40 Foyer [Poster]
P2C-1	Date-Driven Controller Tuning Without Reference Models for State Feedback Typed Servo System	Tomohito Kawamura (The University of Electro-Communications, Japan)
P2C-2	A Study on Input-Output Control of Universal Direct Converter by Low-Pass Filter When the Single-Phase Power is Supplied	Momoka Yabuuchi and Masato Koyama (Mie University, Japan)
P2C-3	Design Method of Disturbance Observer Control System for the Periodic Disturbance	Yu Yamada (Gunma University, Japan); Sorawin Phukapak (Udonthani Rajabhat University & Gunma University, Japan); Chawisorn Phukapak (Rajabhat Maha Sarakham University, Thailand); Nghia Thi Mai (Posts and Telecommunications Institute of Technology & Gunma University, Vietnam); Kotaro Hashikura, Md Abdus Samad Kamal, Iwanori Murakami and Kou Yamada (Gunma University, Japan)
P2C-4	Delay Identification in Remote Control Systems with Time Delay	Takuto Fujiwara and Tomoyuki Shimono (Yokohama National University, Japan); Daniele Canton (Yokohama National University, Italy)
P2C-5	Estimated Speed Compensation Based on Two Types of Axis Errors	Ryosei Takiguchi (University of Keio, Japan); Takahiro Nozaki (Keio University, Japan)
P2C-6	Basic Study on Robust Perfect Tracking Control Based on Parameter Estimation Reducing Outlier Effects	Shogo Yamada (University of Tokyo, Japan); Kota Fujimoto and Hiroshi Fujimoto (The University of Tokyo, Japan)

P3A	March 4th PM 13:50-14:20 Room-A [Shot-gun]	March 4th PM 14:40-16:40 Foyer [Poster]
P3A-1	Performance Evaluation of Out-Of-Distribution Detection on Various Model Size of Deep Learning Models	Ken Eto (Tokyo Denki University, Japan); Yoshihiro Fukuhara (Waseda University, Japan); Rei Kawakami (Tokyo Institute of Technology, Japan); Yuko Ozasa (Graduate School of System Design and Technology, Tokyo Denki University, Japan)
P3A-2	Cutting State Estimation Based on Haptic Information Acquired by One DOF Teleoperated Oscillating Saw for Orthopedic Surgery	Takuya Matsunaga and Shunya Takano (Kanagawa Institute of Industrial Science and Technology, Japan); Tomoyuki Shimono (Yokohama National University, Japan); Kouhei Ohnishi, Toshiki Wakabayashi, Shu Kobayashi, Mitsuru Yagi and Masaya Nakamura (Keio University, Japan)
P3A-3	Development of Fully Automated Preoperative Planning System for Stem in Total Hip Arthroplasty	Shun Inoue and Yoshiyuki Kagiya (University of YAMANASHI, Japan); Yoshito Otake (Nara Institute of Science and Technology, Japan); Masaki Takao (Ehime University, Japan); Keisuke Uemura and Nobuhiko Sugano (Osaka University, Japan); Yoshinobu Sato (Nara Institute of Science and Technology, Japan)
P3A-4	Realization of Precise Manipulation by Admittance-Based Bilateral Control Using Piezoelectric Actuator	Saki Kozu and Izumi Kotani (Keio University, Japan); Kenta Seki (Nagoya Institute of Technology, Japan); Naoki Motoi (Kobe University, Japan); Takahiro Nozaki (Keio University, Japan)
P3A-5	Investigation of Lower Limit of Admittance with Varying Mass in Admittance Bilateral Control	Reina Wakimoto, Izumi Kotani and Takahiro Nozaki (Keio University, Japan)
P3A-6	Contact Force Control Using a Variable Spring Constant Model to Represent Axial Torsion Phenomena for an Articulated Robot with Motors with Built-In Double Encoders	Noba Kyotaro (Mie University, Japan)
P3B	March 4th PM 13:50-14:20 Room-B [Shot-gun]	March 4th PM 14:40-16:40 Foyer [Poster]
P3B-1	Power-Assist Control of Straight Driving and Turning of a Hand Push Electric Transporter with Rear Wheel Steering	Hirokata Kitagawa (Nagaoka University of Technology, Japan)
P3B-2	Trajectory Generation Algorithm for Sprinkler Truck Considering Vehicle Constraints	Hiroki Noguchi (Yokohama University, Japan); Yasutaka Fujimoto (Yokohama National University, Japan); Atsushi Sakai, Shota Konishi and Kenta Osagawa (Komatsu Ltd., Japan)
P3B-3	Control of Autonomous Mobile Robot with Simple Map	Sota Ushigome and Yasutaka Fujimoto (Yokohama National University, Japan)
P3B-4	Modeling and Sliding Mode Control of Magnetization Current Considering Rectifier in High Frequency Linked AC-DC Matrix Converter	Takeshi Asano and Masato Koyama (Mie University, Japan)
P3B-5	Anti-Dive Suspension Force Based Sprung Roll-Heave Non-Interference Simultaneous Control of In-Wheel-Motored Vehicles	Chen Qi (University of Tokyo, Japan); Sakahisa Nagai (The University of Tokyo, Japan); Minh Binh Nguyen (University of Tokyo, Japan); Hiroshi Fujimoto (The University of Tokyo, Japan)
P3B-6	An Estimation on Attitude Control System with Magnetorquer by Permanent Magnet for Ultra-Small Satellite on Polar Orbit	Daisuke Akaishi (National Institute of Technology (KOSEN), Gunma College, Japan)
P3C	March 4th PM 13:50-14:20 Room-B [Shot-gun]	March 4th PM 14:40-16:40 Foyer [Poster]
P3C-1	Reluctance Actuator with Integrated Hall Sensor and Permanent Magnet for Vibration Isolation	Takamaro Fukuyama (University of Fukui, Japan)
P3C-2	Expanding the Control Bandwidth of Optimal Position/Power-Saving MagLev Control System of Helical Motor Using HOSMD	Yuta Atsumi and Masato Koyama (Mie University, Japan)
P3C-3	Design of Lightweight and Fast-Response High-Voltage Converter Using Switched Capacitor	Ryota Tauchi, Tomoya Kitamura and Takahiro Nozaki (Keio University, Japan)
P3C-4	Modeling of Hysteresis Characteristics Using Upper Bounded Unparallel Prandtl-Ishlinskii Model	Yuki Aihara, Kenta Seki and Makoto Iwasaki (Nagoya Institute of Technology, Japan)
P3C-5	Finite Element Analysis of Magnetic Geared Screw Two-Degree-Of-Freedom Motor with Halbach Array	Sumika Miyata, Yoshiyuki Hatta and Kazuaki Ito (Gifu University, Japan)
P3C-6	Transmission Coil Structure of Halbach Array with Magnetic Flux Concentration in Wireless Power Transfer	Takayuki Oba and Yuhei Tomioka (Keio University, Japan); Sakahisa Nagai (The University of Tokyo, Japan); Takahiro Nozaki (Keio University, Japan)
P3C-7	Velocity Noise Reduction Using Multi-Level Inverters	Koki Kodama and Hidemine Obara (Yokohama National University, Japan); Tomoki Yokoyama (Tokyo Denki University, Japan); Tomoyuki Shimono (Yokohama National University, Japan)