

| March 7th | | | | | | | | | |
|--------------------------|---|--|--|--|---|--|--|--|--|
| Room 1 (501) | | | | | | | | | |
| Opening | | | | | | | | | |
| Break | | | | | | | | | |
| Room 1 (501) | | | Room 5 (401) | | | | Room 2 (502) | | |
| TT1: Force control | | | TT2: Actuator and motor drive | | | | TT3: High precision control | | |
| 9:30-11:30 | | Motoki Sato | Toyo Denki Seizo K.K. | | Yuki Yokokura | Nagaoka University of Technology | | Takenori Atsumi | Chiba Institute of Technology |
| | | Naoki Oda | Chitose Institute of Science and Technology | | Hidetoshi Ikeda (Yasutaka Fujimoto) | Mitsubishi Electric Corporation | | Kenta Seki | Nagoya Institute of Technology |
| | | Title | First Autor | | Title | First Autor | | Title | First Autor |
| | TT1-1 | Torque Control Using Resonance Ratio Control for Tendon-Driven Mechanism Including USM and Linear Spring | Takeru Aoyama (Mie University) | TT2-1 | Inherent Back-EMF Measurement of a Novel Radial-Gap Helical ROTLIN Machine | Christophe CYUSA (Yokohama National University) | TT3-1 | Feedforward Control Design of Wave System Based on Reaction Force | Yuuki Inoue (Keio University) |
| | TT1-2 | Feedback Linearization Based Force Controller for 1-DOF Electric Helicopter | Masato Adachi (Mie University) | TT2-2 | New evaluation factor for inter-turn stator winding fault detection based on negative sequence components in induction motors | Makoto Kanemaru (Mitsubishi Electric Corporation) | TT3-2 | Data-Driven Controller Tuning Using Closed-Loop Data by CL-MOESP Method | Haruki Matsumoto (Mie University) |
| | TT1-3 | Impact force control by helical motor | Shunsuke Sasaki (Yokohama National University) | TT2-3 | Design, Analysis, and Performance Estimation of a Novel Worm Drive Actuator | Okechukwu Efofi (Yokohama National University, Japan) | TT3-3 | Torque Ripple Suppression Control Using Hybrid Compensator Based on Disturbance Observer and Torque Ripple Equation | Yoshiaki Seki (Nagaoka University of Technology) |
| | TT1-4 | A New Scaling Method of Force Feedback for Surgical Robot for Single-Port Surgery | Shotaro Maeda (Hosei University) | TT2-4 | Position Sensorless Speed Control Based on Stator Flux Linkage and Stationary Reference Frame for IPMSM | Ryota Takahashi (Nagaoka University of Technology) | TT3-4 | Force Control with Notch Filter for Suppression of Contact force Fluctuation Caused by Periodic Environmental Change | Tsunenori Mori (Yokohama National University) |
| TT1-5 | Evaluation of Performance of the Surgical Robot HASROSS | Katsuaki Oiwa (Hosei University) | TT2-5 | Sensorless Position Estimation Method for Odd-numbered slots Brushed DC Motor | Yuki Saito (Keio University) | TT3-5 | Periodic Disturbance Suppression Based on Infinite-Order Disturbance Observer | Hisayoshi Muramatsu (Keio University) | |
| TT1-6 | Intersection Turning Assist Control Based on Map and Visual Information | Yukihiro Okumura (Keio University) | TT2-6 | Electrolytic Capacitor-Less High-Power-Factor Control Based on Fast Voltage Feedforward Control for IPMSM | Kodai Abe (Nagaoka University of Technology) | TT3-6 | Fully Parameterized Multivariable Controller Design Minimizing Closed-Loop Interaction by Iterative LMI Optimization | Shogo Shinoda (Mie University) | |
| Break | | | | | | | | | |
| 12:30-14:30 | IS2: Optimization benchmark problems for industrial applications and related researches | | | TT4: Mechatronics | | | | | |
| | | Kazuyuki Mori | Mitsubishi Electric Corporation | | Satoshi Komada (Kiyoshi Ohishi) | Mie University | | | |
| | | Masakazu Suzuki | Tokai University | | Naoki Motoi | Kobe University | | | |
| | | Title | First Autor | | Title | First Autor | | | |
| | IS2-1 | Analysis of the optimization benchmark problem for series-parallel switching of photovoltaic modules under various conditions | Takashi Okamoto (Chiba University) | TT4-1 | Experimental Verification of Rudder Control Method Based on Yaw Moment Observer for Electric Skycares in Driving Mode | Sho Umeda (The University of Tokyo) | | | |
| | IS2-2 | On The Small-Start Concept for Learning-Oriented Optimization of Large-scale Adaptive Evolutionary Systems | Masakazu Suzuki (Tokai University) | TT4-2 | Modeling of Nonlinear Spring SAT Considering Extension and Contraction Movement for Stiffness Control of Tendon Mechanisms | Yosuke Futamura (Mie University) | | | |
| | IS2-3 | Operational Planning and Scheduling Problem in an Automatic Picking System as a Benchmark - Additional Case Data on Different Scales - | Hitoshi Iima (Kyoto Institute of Technology) | TT4-3 | Fundamental Study on Vertical and Longitudinal Force Control for Electric Airplane with Multiple Propellers | Tokuma Ikegami (The University of Tokyo) | | | |
| IS2-4 | An optimization benchmark problem based on the energy plant model in the smart-community | Ryohei Suzuki (Fuji Electric Co., Ltd.) | TT4-4 | Torque Sensorless Control for Electric Power Assisted Bicycle with Instantaneous Pedaling Torque Estimation | Takumi Kurosawa (Yokohama National University) | | | | |
| IS2-5 | Operation Planning of Community Energy Management Systems Considering Inter-community Energy Trade | Masahiro Okada (Osaka University) | TT4-5 | Integration of distributed maps based on received signal strength among mobile robots | Naoki Hida (Shibaura Institute of Technology) | | | | |
| IS2-6 | Operation Optimization of Office Building Installed SOFC System Using Stochastic Programming | Shoko Kimura (Osaka Prefecture University) | TT4-6 | Dynamic Modeling of Free-Floating Wave Energy Converter for Gulf of Thailand | Danai Phaoharhansa (King Mongkut's University of Technology Thonburi) | | | | |
| Break | | | | | | | | | |
| 14:45-16:25 | IS3: Intelligent sensing applications for human assistive systems | | | TT5: Industrial applications | | | | | |
| | | Hiroshi Igarashi | Tokyo Denki University | | Koichi Sakata | Nikon Corporation | | | |
| | | Sota Shimizu | Keio University | | Yasutaka Fujimoto | Yokohama National University | | | |
| | | Title | First Autor | | Title | First Autor | | | |
| | IS3-1 | Self-sustaining drive control of a bike by using a gyro actuator | Nariyuki Kodani (Tokai University) | TT5-1 | Resonant Ratio Control Based Vibration Suppression Control Using Instantaneous State Observer for High-Stiffness Gear Drives | Thaelasutt Tugeumwolachot (Nagaoka University of Technology) | | | |
| IS3-2 | Development of Wide Angle Fovea Binocular -Lens Design and Production of Prototype- | Sota Shimizu (Keio University) | TT5-2 | Positive/Negative Feedback of Disturbance Observer for Compensation of Delay System | Fumito Nishi (Keio University) | | | | |
| IS3-3 | Remote Control Method for Mobile Robot with Virtual Force Feedback Based on Environmental Information | Naoki Motoi (Kobe University) | TT5-3 | Control-Oriented Modeling and Parametric Identification of Coupled Dynamics in Ball-Screw-Driven Systems | Thomas Beauvain (The University of Tokyo) | | | | |
| IS3-4 | Surface Force Feedback Interface with MR Fluid | Hiroshi Igarashi (Tokyo Denki University) | TT5-4 | Determination of Torque Distribution Ratio for Front and Rear Wheels Independently Driven Bicycle | Hiroyuki Kawajiri (Saitama University) | | | | |
| | | | TT5-5 | An experiment of moving power transmission using coaxial contactless power transmission for electric railway | Yoshiyuki Yamaguchi (Yokohama National University) | | | | |
| Break | | | | | | | | | |
| 16:35-17:35 | Room: 6th Bldg., 5th floor, 6-501 | | | | | | | | |
| 18:00-20:00 (17:45 Open) | PS1: Plenary Session: Prof. Kenzo Nonami Recent Technologies and Business of Drones and Prospectives "Cafe&Hall COMMichi" located at the first basement of the 6th Bldg. Banquet | | | | | | | | |