

| March 7th | | | | | | | | |
|--|--|---|--|--|---|------------------------------|--|--|
| Session Room 1 (1204) | | | Session Room 2 (1205) | | | Session Room 3 (1206) | | |
| SS1: Estimation and Information in Motion Control | | | TT5: Biomechanical Control | | | TT6: Precision Control | | |
| Prof. Tadao Zanma | | | Prof. Seiichiro Katsura | | | Prof. Georg Schitter | | |
| Prof. Daisuke Yashiro | | | Prof. Yuki Yokokura | | | Prof. Yoshiyuki Urakawa | | |
| Title | First Autor | | Title | First Autor | | Title | First Autor | |
| SS1-1 | Deformation of Contact Motion by Neural Networks to Adapt for Various Environment Change | Kyo Kutsuzawa (Saitama University) | TT5-1 | Determination Method of Optimal Fiber Length of Muscle Groups of Limbs | Tomoya Ohashi (Mie University) | TT6-1 | Design of Vibration Suppression Control System for Three-mass Resonant System by Coefficient diagram method | Kenta Yajima (Yokohama Science Frontier High School) |
| SS1-2 | Fundamental Study of Vision Based Planar Object Depth and Velocity Estimation via EKF Fusion of Stereo Disparity and Monocular Scaling | Yoshi Ri (The University of Tokyo) | TT5-2 | Study on estimation of lower limb muscle tension considering Inter-knee joint force | Shuhei Madokoro (Mie University) | TT6-2 | Improvement of Tension Control in Roll to Roll Web Systems Considering Disturbance Suppression with Specific Frequency | Takayuki Kikuchi (Nagoya Institute of Technology) |
| SS1-3 | Kalman Filter Based Force Sensation with Periodic Component Elimination for Force Control Considering Static Friction Compensation | Thao Tran Phuong (Nagaoka University of Technology) | TT5-3 | Development of a Lower Limb Assisting Device Using Tendons | Yutaka Fukumori (Mie University) | TT6-3 | Controller Design Method for Dual-Stage-Actuator System of HDDs by using RBoDe Plot | Jun Ito (Chiba Institute of Technology) |
| SS1-4 | Optimal Control for Quantized State Feedback Control System with Variable Quantizer - Application to Inverted Pendulum- | Than Zaw Soe (Chiba University) | TT5-4 | Muscle Power Evaluation for 2 Joints of Lower Limbs in Sagittal Plane | Takahiro Kawai (Mie University) | TT6-4 | Experimental Verification of Extremum Seeking Control of Spindle Speed in NC machining for Chatter Avoidance and Suppression | Takaki Shimoda (The University of Tokyo) |
| SS1-5 | Motion Training using Motion-Copying System Considering Reproduction Stiffness | Satoshi Nishimura (Keio University) | TT5-5 | Tension Conversion Considering Tension Limit for Variable Stiffness Tendon Arms | Masahiro Fujisaki (Mie University) | TT6-5 | Perfect Tracking Control of Dual-Input Dual-Output System for High-Precision Stage in Translation and Pitching Motion | Masahiro Mae (The University of Tokyo) |
| SS1-6 | Vibration Suppression Control for Three-inertia System Based on Two-inertia Model Using Modal Transformation of Real Range | Akinori Yabuki (Nagaoka University of Technology) | | | | TT6-6 | Hybrid Reluctance Actuator for High-speed Scanning with Nanometer Resolution | Shingo Ito (TU Wien) |
| 11:30-13:00 Break | | | | | | | | |
| Session Room 1 (1204) | | | Session Room 2 (1205) | | | Session Room 3 (1206) | | |
| IS1: High Precision Motion Control in Mechatronic Systems | | | TT7: Rehabilitation and Welfare Applications | | | TT8: Advanced Control Theory | | |
| Prof. Tom Oomen | | | Prof. Satoshi Komada | | | Prof. Hyungbo Shim | | |
| Prof. Kenta Seki | | | Prof. Naoki Motoi | | | Dr. Masato Tanaka | | |
| Title | First Autor | | Title | First Autor | | Title | First Autor | |
| IS1-1 | Sampled-Data Positioning Control Techniques for HDDs | Takenori Atsumi (Chiba Institute of Technology) | TT7-1 | Study on control of power assist device in tendon driven mechanism using elastic element | Takashi Fuyuki (Mie University) | TT8-1 | Acoustic Impedance Control for Generating Virtual Wall | Eiji Yokota (Keio University) |
| IS1-2 | High Precision Load State Estimation Using Acceleration-aided Dynamic Kalman Filter and Its Application to Motion Control | Kazuaki Ito (Gifu University) | TT7-2 | Investigation of healing by vibration in a rabbit-type pet robot | Hajime Akedo (Chuo University) | TT8-2 | Design of Weighting Function for H_{∞} Loop Shaping Method Using Frequency Responses for stable MIMO plant | Tomohiro Usami (Mie University) |
| IS1-3 | Vibration Suppression by Pole Zero Cancellation with Limited Pole Placement Method | Yoshiyuki Urakawa (Nippon Institute of Technology) | TT7-3 | Postural Control Experiments for 3D Inverted Pendulum Using Wearable-CMG | Hiroki Oya (Yokohama National University) | TT8-3 | Fully Parametrized H_{∞} Controller Tuning for Sensitivity Minimization Using Input/Output Data | Tomoki Hori (Mie University) |
| IS1-4 | A study on PWM-type input systems: Ability of multiple pulses to generate arbitrary vectors and exact linearization | Masayasu Suzuki (Utsunomiya University) | TT7-4 | Analysis of Adaptive Controller on Object Coordination System for Bilateral Control System with Time Delay | Yutaka Yamamoto (Mie University) | TT8-4 | Stability Guaranteed NCbT Based on Nyquist Stability Criterion | Munemitsu Date (Mie University) |
| IS1-5 | Review on multirate feedforward: model-inverse feedforward control for non-minimum phase systems | Wataru Ohnishi (The University of Tokyo) | TT7-5 | Trajectory Planning and Motion Control for Transfer Support Robot | Kouta Yokoyama (Yokohama National University, KISTEC) | TT8-5 | High-Speed tracking control in irregular operation target | Yoshihiko Imanishi (Seikei University) |
| 14:40-15:10 Break | | | | | | | | |
| 15:10-16:05 Session Room 1 (1204) Tutorial 1: Prof. Michael Ruderman, "Feedback relay systems: established approaches and new perspectives for application" | | | | | | | | |
| 16:05-17:00 Tutorial 2: Prof. Hyungbo Shim, "Underlying theory of disturbance observers with large bandwidth of Q-filter" | | | | | | | | |
| 17:30-19:30 Banquet | | | | | | | | |