2014 IEEE/SICE International Symposium on System Integration

(SII 2014)

Tokyo, Japan
13-15 December 2014
## Table of Contents

### Technical Program for Saturday December 13, 2014

#### SaA1A
**OS6 Adaptive Robot Systems and Intelligent Human - Machine Interaction**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:30-09:50</td>
<td>SaA1A.1</td>
<td><strong>Combining a Collaborative Robot and a Lightweight Jamming-Gripper to Gain an Intuitive to Use and Flexible Co-Worker (I)</strong>, pp. 1-5.</td>
<td>Reitelshöfer, Sebastian (Friedrich-Alexander-Univ. of Erlangen-Nuremberg), Ramer, Christina (Friedrich-Alexander-Univ. of Erlangen-Nuremberg), Gräf, Daniel (Friedrich-Alexander-Univ. Erlangen-Nürnberg), Matern, Falko (Friedrich-Alexander-Univ. Erlangen-Nürnberg), Franke, Jörg (Friedrich-Alexander-Univ. of Erlangen-Nuremberg)</td>
</tr>
<tr>
<td>09:50-10:10</td>
<td>SaA1A.2</td>
<td><strong>Towards Virtual Presence Applying Multi-Modal Man-Machine Communication; Soon Full Remote Operation of Industrial Robot Systems (I)</strong>, pp. 6-11.</td>
<td>Thomessen, Trygve (Ppm As), Niitsuma, Mihoko (Chuo Univ), Suzuki, Keita (Chuo Univ)</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td>SaA1A.3</td>
<td><strong>Crucial Challenges and Groundbreaking Opportunities for Advanced HRI (I)</strong>, pp. 12-15.</td>
<td>Pipe, Tony (Univ. of the West of England), Dailami, Farid (Bristol Robotics Lab), Melhuish, Chris (Brl)</td>
</tr>
<tr>
<td>10:50-11:10</td>
<td>SaA1A.5</td>
<td><strong>Developing a Wearable Wrist Glove for Fieldwork Support: A User Activity-Driven Approach</strong>, pp. 22-27.</td>
<td>Jiang, Shan (Fujitsu Lab. Ltd), Sakai, Katsushi (Fujitsu Lab. LTD), Yamada, Moyuru (Fujitsu Lab. LTD), Fujimoto, Junya (FUJITSU Lab. LTD), Hidaka, Hiroshi (FUJITSU Lab. LTD), Okabayashi, Keiju (Fujitsu Lab. Ltd), Murase, Yuichi (Fujitsu Lab. Ltd)</td>
</tr>
</tbody>
</table>

#### SaA1B
**Robot Control**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:30-09:50</td>
<td>SaA1B.1</td>
<td><strong>Safeness of a Robot Arm Using Ultrasonic Motors with High Responsiveness and Backdrivability</strong>, pp. 28-33.</td>
<td>Yamashita, Takahito (Toyohashi Univ. of Tech), Mashimo, Tomoaki (Toyohashi Univ. of Tech), Takesue, Naoyuki (Tokyo Metropolitan Univ), Terashima, Kazuhiko (Toyohashi Univ. of Tech)</td>
</tr>
<tr>
<td>10:10-10:30</td>
<td>SaA1B.3</td>
<td><strong>Efficient Motion Planning for Fast Motion of Path Tracking Task with Constant Hand Speed Using Redundant Manipulator</strong>, pp. 40-45.</td>
<td>Okabe, Kousuke (Tsukuba Univ), Aiyama, Yasumichi (Univ. of Tsukuba)</td>
</tr>
<tr>
<td>10:50-11:10</td>
<td>SaA1B.5</td>
<td><strong>Intelligent Control of a Pruning Robot</strong>, pp. 52-57.</td>
<td>Kondo, Hiroonri (Gifu Univ), Kawasaki, Haruhsa (Gifu Univ), Ishigure, Yasuhi (Marutomi Seiko Co, Ltd), Endo, Takahiro (Gifu Univ), Ueki, Satoshi (Toyota National Coll. of Tech)</td>
</tr>
<tr>
<td>11:10-11:30</td>
<td>SaA1B.6</td>
<td><strong>Control of a Wire-Driven 7-DOF Arm for Miniature Humanoid with Gravity Compensation Model</strong>, pp. 58-63.</td>
<td>Han, Hyun-Tae (Yamagata Univ), Tsumaki, Yuichi (Yamagata Univ)</td>
</tr>
</tbody>
</table>

#### SaA1C
**OS9 Biomanipulation**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:30-09:50</td>
<td>SaA1C.1</td>
<td><strong>Application for Fractal Effect for New Brain Intravascular Treatment (I)</strong>, pp. 64-67.</td>
<td></td>
</tr>
</tbody>
</table>
Ichikawa, Akihiko (Meijo Univ), Itou, Kouhei (Meijo Univ), Shimogaito, Kouhei (Meijo Univ), Kubo, Takashi (Meijo Univ), Fukuda, Toshio (Meijo Univ)

09:50-10:10  

Yoshioka, Moto (Univ. of Tokyo), Miyazak, Hiroki (Univ. of Tokyo), Wagatsuma, Akira (Univ. of Tokyo), Mabuchi, Kunihiro (Univ. of Tokyo), Hoshino, Takayuki (Univ. of Tokyo)

10:10-10:30  
**Local Microinjection Near Nerve Axon of C. Elegans with Hydro-Gel Beads Based on Micromanipulation (I),** pp. 72-75.

Nakajima, Masahiro (Nagoya Univ), Ayamura, Yuki (Nagoya Univ), Hisamoto, Naoki (Nagoya Univ), Strahil, Pastuhov (Nagoya Univ)

10:30-10:50  

Ekuni, Shota (Univ. of Tsukuba), Sankai, Yoshiyuki (Univ. of Tsukuba)

10:50-11:10  
**CT Phantom for Development of Robotic Interventional Radiology,** pp. 82-87.

Nakaya, Hirotaka (Okayama Univ), Matsuno, Takeyuki (Okayama Univ), Kamegawa, Tetsushi (Okayama Univ), Hiraki, Takao (Okayama Univ. Medical School), Inoue, Takuya (Okayama Univ), Yanou, Akio (Okayama Univ), Minami, Mamoru (Okayama Univ), Gofuku, Akio (Okayama Univ)

11:10-11:30  

Kashihara, Koji (The Univ. of Tokushima)

SaA1D  
**OS7 Swarm Systems**

09:30-09:50  
**Connectivity of Swarm Robot Networks for Communication Range and the Number of Robots Based on Percolation Theory (I),** pp. 93-98.

Katada, Yoshiaki (Setsunan Univ)

09:50-10:10  
**Development of Small Weeding Robots for Rice Fields (I),** pp. 99-105.

Maruyama, Atsunori (Univ. of Aizu), Naruse, Keitaro (Univ. of Aizu)

10:10-10:30  
**Self-Organized Flocking of a Mobile Robot Swarm by Topological Distance-Based Interactions (I),** pp. 106-111.

Yasuda, Toshiyuki (Hiroshima Univ), Adachi, Akito (Hiroshima Univ), Ohkura, Kazuhiro (Hiroshima Univ)

10:30-10:50  
**Swarm Behavior of Simulated Flapping Birds Using Kuramoto Model (I),** pp. 112-117.

Kato, Ryota (Hokkaido Univ), Iizuka, Hiroyuki (Hokkaido Univ), Yamamoto, Masahito (Hokkaido Univ)

10:50-11:10  
**Collective Construction of Dynamics Structure: Collaboration between Semi-Active Blocks and Simple Robots (I),** pp. 118-121.

Sugawara, Ken (Tohoku Gakuin Univ), Doi, Yohei (Tohoku Gakuin Univ)

11:10-11:30  
**A Particle Filter Approach for Reputation Information Systems (I),** pp. 122-127.

Yamada, Kazuaki (Toyo Univ)

SaA1E  
**Vision Systems (I)**

09:30-09:50  
**Recognition of Elevators with the Kinect Cane System for the Visually Impaired,** pp. 128-131.

Kuramochi, Yusuke (Univ. of Tsukuba), Takizawa, Hotaka (Univ. of Tsukuba), Aoyagi, Mayumi (Univ. of Tsukuba), Ezaki, Nobuo (Toba National Coll. of Maritime Tech), Mizuno, Shinji (Aichi Inst. of Tech)

09:50-10:10  
**Building Multi-Resolution Volumetric 3D Maps in Real-Time Using CPU,** pp. 132-137.

Ktiri, Youssef (The Univ. of Tokyo), Okada, Kei (The Univ. of Tokyo), Inaba, Masayuki (The Univ. of Tokyo)

10:10-10:30  

Compensation of Over and under Exposure Image Using Multiple Light Switching, pp. 147-152.


Designing Airborne Ultrasonic 3D Tactile Object, pp. 159-162.


Cloud VR System with Immersive Interfaces to Collect Human Gaze-Controls and Interpersonal-Behaviors, pp. 169-174.


M2T: Local Map Descriptor, pp. 210-215.

Mobile Robot Localization Based on Particle Filter with Re-Sampling from the Heuristic Perspective, N/A

Robot Localization and Distributed Semantic Mapping Based on QR Code and RFID Technology, N/A
### SaP1C

**OS2 Energy-Aware Intelligent Spaces and Solutions in the Denzero Project**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:30-13:50</td>
<td>SaP1C.1</td>
<td>The Intelligent Building Definition: A Central-European Approach (I), pp. 216-221.</td>
<td>Szász, Csaba (Tech. Univ. of Cluj), Husi, Géza (Debrecen Univ)</td>
</tr>
<tr>
<td>13:50-14:10</td>
<td>SaP1C.2</td>
<td>Simulation-Based Optimization in Energy Efficiency Retrofit for Office Building (I), pp. 222-227.</td>
<td>Bánöczy, Emese (Univ. of Debrecen), Szemes, Péter Tamás (Univ. of Debrecen)</td>
</tr>
<tr>
<td>14:10-14:30</td>
<td>SaP1C.3</td>
<td>Research Equipment and Computation Techniques for Intelligent Building Applications (I), pp. 228-233.</td>
<td>Vesselenyi, Tiberiu (Univ. of Oradea), Bungau, Constantin (Univ. of Oradea), Husi, Géza (Univ. of Oradea)</td>
</tr>
<tr>
<td>14:30-14:50</td>
<td>SaP1C.4</td>
<td>Assessing the Effect of Design Parameters on Optimal Size of Isolated PV Systems for Residential Utilizations (I), pp. 234-239.</td>
<td>Imam, Sherif (Kafrelsheikh Univ), Azmy, Ahmed (Tanta Univ), Rashad, Essam (Tanta Univ), Husi, Géza (Debrecen Univ)</td>
</tr>
<tr>
<td>14:50-15:10</td>
<td>SaP1C.5</td>
<td>Latest Research Results of the Intelligent Buildings Group in the DEnzero Project (I), pp. 240-244.</td>
<td>Husi, Géza (Univ. of Debrecen Engineering Faculty)</td>
</tr>
</tbody>
</table>

### SaP1D

**Control Technology (1)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:30-13:50</td>
<td>SaP1D.1</td>
<td>Further Results on Output Feedback Control for a Class of High Order Stochastic Nonlinear Systems with More General Conditions, pp. 245-250.</td>
<td>Guo, Longchuan (China Univ. of Petroleum), Liang, Huaqing (China Univ. of Petroleum), Zuo, Xin (China Univ. of Petroleum), Liu, Jianwei (China Univ. of Petroleum)</td>
</tr>
<tr>
<td>13:50-14:10</td>
<td>SaP1D.2</td>
<td>Robust Optimal Control of Flexible Space Structures by a Fourth-Order Proper Controller Using Displacement Output, pp. 251-256.</td>
<td>Igawa, Kengo (Kobe City Coll. of Tech), Kobayashi, Yohji (Kobe City Coll. of Tech)</td>
</tr>
<tr>
<td>14:10-14:30</td>
<td>SaP1D.3</td>
<td>Optimal PD Control Design Via Dominant Pole Assignment for a Class of TORA Systems, pp. 257-262.</td>
<td>Sumida, Kaoru (Okayama Prefectural Univ), Xin, Xin (Faculty of Computer Science and Systems Engineering), Yamasaki, Taiga (Okayama Prefectural Univ)</td>
</tr>
</tbody>
</table>

### SaP1E

**Vision Systems (2)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>13:30-13:50</td>
<td>SaP1E.1</td>
<td>Precise Color Extraction Method Based on Color Transition Due to Change in Exposure Time, pp. 275-280.</td>
<td>Yamauchi, Kenji (Utsunomiya Univ), Akai, Naoki (Utsunomiya Univ), Ozaki, Koichi (Utsunomiya Univ)</td>
</tr>
<tr>
<td>13:50-14:10</td>
<td>SaP1E.2</td>
<td>Three-Dimensional Measurement of Objects in Liquid with an Unknown Refractive Index Using Fisheye Stereo Camera, pp. 281-286.</td>
<td>Sakamoto, Kazuki (The Univ. of Tokyo), Moro, Alessandro (Ritecs Inc), Fujii, Hiromitsu (The Univ. of Tokyo), Yamashita, Atsushi (The Univ. of Tokyo), Asama, Hajime (The Univ. of Tokyo)</td>
</tr>
<tr>
<td>14:10-14:30</td>
<td>SaP1E.3</td>
<td>Real-Time Reflectance Transformation Using Single Frame Surface Orientation Imager, pp. 287-291.</td>
<td>Kunihara, Toru (Kochi Univ. of Tech), Ando, Shigenu (Univ. of Tokyo)</td>
</tr>
<tr>
<td>14:30-14:50</td>
<td>SaP1E.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Ohtsuka, Hirofumi (NIT, Kumamoto Coll), Kashimoto, Takahiro (NIT, Kumamoto Coll)

**Proposing a High Performance Face Detector Based on UKF**, pp. 298-303.
Lamsal, Bikash (Ashikaga Inst. of Tech), Matsumoto, Naofumi (Ashikaga Inst. of Tech)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:50-15:10</td>
<td>SaP1E.5</td>
</tr>
<tr>
<td>15:30-15:50</td>
<td>SaP2A</td>
</tr>
<tr>
<td>15:50-16:10</td>
<td>SaP2A.2</td>
</tr>
<tr>
<td>16:10-16:30</td>
<td>SaP2A.3</td>
</tr>
<tr>
<td>16:30-16:50</td>
<td>SaP2A.4</td>
</tr>
<tr>
<td>16:50-17:10</td>
<td>SaP2A.5</td>
</tr>
<tr>
<td>15:30-15:50</td>
<td>SaP2B</td>
</tr>
<tr>
<td>15:50-16:10</td>
<td>SaP2B.1</td>
</tr>
<tr>
<td>16:10-16:30</td>
<td>SaP2B.2</td>
</tr>
<tr>
<td>16:30-16:50</td>
<td>SaP2B.3</td>
</tr>
<tr>
<td>16:50-17:10</td>
<td>SaP2B.4</td>
</tr>
<tr>
<td>15:30-15:50</td>
<td>SaP2C</td>
</tr>
<tr>
<td>15:50-16:10</td>
<td>SaP2C.1</td>
</tr>
<tr>
<td>16:10-16:30</td>
<td>SaP2C.2</td>
</tr>
<tr>
<td>16:50-17:10</td>
<td>SaP2C.3</td>
</tr>
</tbody>
</table>

**SaP2A**

**Human Interaction (2)**

15:30-15:50

Shimura, Kouyou (Shibaura Inst. of Tech), Ando, Yoshinobu (Shibaura Inst. of Tech), Yoshimi, Takashi (Shibaura Inst. of Tech), Mizukawa, Makoto (Shibaura Inst. of Tech)

15:50-16:10

**A Handshake Response Motion Model During Active Approach to a Human**, pp. 310-315.
Ota, Shunsuke (Okayama Prefectural Univ), Jindai, Mitsuru (Univ. of Toyama), Fukuta, Tadao (Okayama Prefectural Univ), Watanabe, Tomio (Okayama Prefectural Univ)

16:10-16:30

Takeuchi, Marina (Osaka Univ), Isogawa, Mariko (Osaka Univ), Iwai, Daisuke (Osaka Univ), Sato, Kosuke (Osaka Univ)

16:30-16:50

Luo, Ren (National Taiwan Univ), Chan, Wai Un (National Taiwan Univ), Lai, Po-Jen (National Taiwan Univ)

16:50-17:10

Nishimuta, Izaya (Kyoto Univ), Yoshii, Kazuysahi (Kyoto Univ), Itoyama, Katsutoshi (Kyoto Univ), Okuno, Hiroshi G. (Waseda Univ)

**SaP2B**

**OS1 Localization and Integrated Navigation Systems**

15:30-15:50

**Dual GNSS Systems Positioning Based on Nonlinear Filter and Satellites Selection in Bad Conditions (I)**, pp. 334-339.
Dai, Fucheng (Shanghai Jiao Tong Univ), Mao, Xuchu (Shanghai Jiao Tong Univ)

15:50-16:10

Kong, JaeHyok (Shanghai Jiao Tong Univ), Mao, Xuchu (Shanghai Jiao Tong Univ), Li, Shaoyuan (Shanghai Jiao Tong Univ)

16:10-16:30

Ren, Guanghui (Shanghai Jiao Tong Univ), Mao, Xuchu (Shanghai Jiao Tong Univ), Wu, Chengze (Shanghai Jiao Tong Univ)

16:30-16:50

Huang, Haoqian (Southeast Univ), Chen, Xiyuan (Southeast Univ)

**SaP2C**

**Networking Systems**

15:30-15:50

Fujii, Naooki (Kyoto Univ), Takahashi, Ryo (Kyoto Univ), Hikihara, Takashi (Kyoto Univ)

15:50-16:10

**Scheduling UAVs to Bridge Communications in Delay-Tolerant Networks Using Real-Time Scheduling Analysis Techniques**, pp. 363-369.
Kwon, Jagun (Univ. Coll. London (UCL)), Hailes, Stephen (Univ. Coll. London (UCL))

16:10-16:30

**Development of Small Optical Transmitter for Microsatellites**, pp. 370-375.
Fukuda, Kazufumi (Tohoku Univ), Hashimoto, Tatsuaki (Tohoku Univ), Kuwahara, Toshinori (Tohoku Univ), Kunimori, Hiroo (Nict), Yoshida, Kazuya (Tohoku Univ)
16:30-16:50  SaP2C.4

Feasibility Study on OFDM Signal Transmission with UWB 2D Communication Tile, pp. 376-380.
Okada, Akimasa (The Univ. of Tokyo), Noda, Akihito (The Univ. of Tokyo), Shinoda, Hiroyuki (Univ. of Tokyo)

16:50-17:10  SaP2C.5

Chen, Jiann-Liang (National Taiwan Univ. of Science and Tech), Ma, Yi-Wei (National Taiwan Univ. of Science and Tech), Kuo, Hung-Yi (National Taiwan Univ. of Science and Tech), Hung, Wen-Chien (Inst. of Information Industry)

SaP2D

Control Technology (2)

15:30-15:50  SaP2D.1

Anisotropic Adhesion Model for Translational and Rotational Motion, pp. 385-391.
Kato, Hiroaki (Canon Inc)

15:50-16:10  SaP2D.2

Model Identification for Perfect Tracking Control of PA10 Robot Arm with Joint Velocity Servo Driver, pp. 392-397.
Shimizu, Masayuki (Shizuoka Univ)

16:10-16:30  SaP2D.3

Posture Control of Inverted Pendulum Cart with Balancing Mechanism Using Full-Order State Observer, pp. 398-403.
Hashimoto, Yuji (Okayama Univ), Otsuki, Yuki (Okayama Univ), Matsuno, Takayuki (Okayama Univ), Yanou, Akira (Okayama Univ), Minami, Mamoru (Okayama Univ)

16:30-16:50  SaP2D.4

Ouyang, Huimin (Nanjing Tech. Univ), Liu, Feng (Nanjing Tech. Univ), Zhang, Guangming (Nanjing Tech. Univ), Mei, Lei (Nanjing Tech. Univ), Deng, Xin (Nanjing Tech. Univ), Wang, Deming (Nanjing Tech. Univ)
### Technical Program for Sunday December 14, 2014

#### SuA1A

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:10-10:30</td>
<td>SuA1A.1</td>
<td>An Effectiveness of Model-Based Development with User Model in Developing a Wheelchair Robot with an Ability of Telepresence (I), pp. 408-413.</td>
<td>Akimoto, Yoshinobu (Tokyo Metropolitan Univ), Sato-Shimokawara, Eri (Tokyo Metropolitan Univ), Fujimoto, Yasunari (Tokyo Metropolitan Univ), Yamaguchi, Toru (Tokyo Metropolitan Univ)</td>
</tr>
<tr>
<td>10:30-10:50</td>
<td>SuA1A.2</td>
<td>Proposal of Collecting Lighting Situation of Roads at Night for Recommendation of Safety Walking Route Using Smartphone (I), pp. 414-418.</td>
<td>Xu, Xiaotong (Tokyo Metropolitan Univ), Sasaki, Wataru (Tokyo Metropolitan Univ), Yu, Chi-Chih (Tokyo Metropolitan Univ), Takama, Yasufumi (Tokyo Metropolitan Univ)</td>
</tr>
<tr>
<td>10:50-11:10</td>
<td>SuA1A.3</td>
<td>Exercise Support System Applying Human-Robot Communication for Mobile Home (I), pp. 419-424.</td>
<td>Ho, Yi-Hsin (Tokyo Metropolitan Univ), Sato-Shimokawara, Eri (Tokyo Metropolitan Univ), Yamaguchi, Toru (Tokyo Metropolitan Univ), Matsuhira, Nobuto (Shibaura Inst. of Tech), Tagawa, Norio (Tokyo Metropolitan Univ)</td>
</tr>
<tr>
<td>11:10-11:30</td>
<td>SuA1A.4</td>
<td>Multi-Sensor-Based Ambient Sensing System for the Estimation of Comfort/Discomfort During Desk Work, pp. 425-430.</td>
<td>Yoshimizu, Kengo (Osaka Univ), Takemura, Noriko (Osaka Univ), Iwai, Yoshio (Tottori Univ), Sato, Kosuke (Osaka Univ)</td>
</tr>
<tr>
<td>11:30-11:50</td>
<td>SuA1A.5</td>
<td>Speech-Driven Embodied Entrainment Character System with Emotional Expressions and Motions by Speech Recognition, pp. 431-435.</td>
<td>Kohara, Mizuki (Okayama Prefectural Univ), Shikata, Hiraku (Okayama Prefectural Univ), Watanabe, Tomio (Okayama Prefectural Univ), Ishii, Yutaka (Okayama Prefectural Univ)</td>
</tr>
</tbody>
</table>

#### SuA1B

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:10-10:30</td>
<td>SuA1B.1</td>
<td>A Low Cost and Lightweight Wire Driven Robot Arm by Using Elastic Strings, pp. 436-440.</td>
<td>Togashi, Junki (Yamagata Univ), Matsuda, Tsukasa (Yamagata Univ), Mitobe, Kazuhisa (Yamagata Univ)</td>
</tr>
<tr>
<td>10:30-10:50</td>
<td>SuA1B.2</td>
<td>Proposal of Tool Path Generation for Recycle Pad in Chemical Mechanical Polishing Based on Piecewise Linear Interpolation Method, pp. 441-446.</td>
<td>Kawaguchi, Tomoyuki (Mie Univ), Takagi, Yuto (Mie Univ), Sakamoto, Ryota (Mie Univ. Hospital), Yano, Ken’ichi (Mie Univ), Suzuki, Tatsutoshi (Toho Engineering Co., Ltd)</td>
</tr>
<tr>
<td>10:50-11:10</td>
<td>SuA1B.3</td>
<td>Optimal Grasping Poses of Manipulators for Cooperative Manipulation with Passive Joints, pp. 447-452.</td>
<td>Ota, Ryo (Chuo Univ), Osumi, Hisashi (Chuo Univ), Tamura, Yusuke (Chuo Univ)</td>
</tr>
<tr>
<td>11:10-11:30</td>
<td>SuA1B.4</td>
<td>Grasp Stability Analysis for Elastic Fingertips by Using Potential Energy, pp. 453-458.</td>
<td>Tsuji, Tokuo (Kyushu Univ), Baba, Kosei (Kyushu Univ), Tahara, Kenji (Kyushu Univ), Harada, Kensuke (National Inst. of AIST), Morooka, Ken’ichi (Kyushu Univ), Kurazume, Ryo (Kyushu Univ)</td>
</tr>
<tr>
<td>11:30-11:50</td>
<td>SuA1B.5</td>
<td>Integrated Robot Design Considering Feasible Motion Conditions and Dynamical Relations between Body Parameters, pp. 459-464.</td>
<td>Miyazaki, Tetsuro (Yokohama National Univ), Kanekiyo, Akihiro (Yokohama National Univ), Tsuchiyama, Yutaka (Yokohama National Univ), Sanada, Kazushi (Yokohama National Univ)</td>
</tr>
</tbody>
</table>

#### SuA1C

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30-10:50</td>
<td>SuA1C.2</td>
<td>Design of Steering Operation Model Scheduled by Vehicle Velocity for Lane Change - Approach Via H Infinity Loop</td>
<td></td>
</tr>
</tbody>
</table>
Shaping, pp. 471-474.
Shimizu, Shun (Waseda Univ), Watanabe, Ryo (Waseda Univ)
10:50-11:10 SuA1C.3

Direct Yaw-Moment Control for In-Wheel Motor Electric Vehicles, pp. 475-479.
Hu, Jia-Sheng (National Univ. of Tainan), Xin, Cheng, Lin (National Univ. of Tainan), Hu, Feng-Rung (National Taichung Univ)
11:10-11:30 SuA1C.4

Inverse Perspective Mapping Based Road Curvature Estimation, pp. 480-483.
Seo, Dongwook (Univ. of Ulsan), Jo, Kang-Hyun (Univ. of Ulsan)

Road Surface Marking Recognition Using Neural Network, pp. 484-489.
Yamamoto, J. (Univ. of Tokushima), Karungaru, S. (Univ. of Tokushima), Terada, K. (Univ. of Tokushima)

SuA1D
Human Factors and Ergonomics
10:10-10:30 SuA1D.1

Similarities and Differences in Manual Stretching of Physical Therapists for Equinovarus, pp. 490-495.
Yamada, Naomi (Nagoya Univ), Okamoto, Shogo (Nagoya Univ), Okumura, Hiroshi (Nagoya Univ), Yamada, Yoji (Nagoya Univ),
Isogai, Kaoru (Tokoha Univ), Kawakami, Keisuke (Nagoya Univ)
10:30-10:50 SuA1D.2

Recognition of Walking Movement from EMG using a Framework Combining LLE and HMM, pp. 496-501.
Pham, Hang (Toyota Tech. Inst), Kawanishi, Michihiro (Toyota Tech. Inst), Narikiyo, Tatsuo (Toyota Tech. Inst)
10:50-11:10 SuA1D.3

Suzurikawa, Jun (Res. Inst. of National Rehabilitation Center for Persons), Iwata, Kaku (National Inst. of Advanced Industrial
Science Andtechnology), Matsumoto, Osamu (National Inst. of AIIST), Inoue, Takenobu (The National Rehabilitation
CenterForPersonswithDisabilities)
11:10-11:30 SuA1D.4

Design of Steering Wheel Characteristics Based on Human Arm Mechanical Properties, pp. 508-513.
Nishikawa, Kazuo (Mazda Motor Corp), Furukawa, Kouji (Mazda Motor Corp), Kawate, Isao (Mazda Motor Corp), Miyazaki, Tooru
(Mazda Motor Corp), Nouzawa, Takahide (Mazda Motor Corp), Tsuji, Toshio (Hiroshima Univ)

SuA1E
OS3 Applications of Grey System Theory and Modeling
10:10-10:30 SuA1E.1

Romsaiyud, Walisa (Siam Univ)
10:30-10:50 SuA1E.2

Assessing the Application of Mobile Phones in English Language Learning among Taiwanese University Students Via
GM(0, N) (I), pp. 520-524.
Liang, Hui-Yi (Chien-Kuo Tech. Univ), Ming-Yang, Liu (Chienkuo Tech. Univ), Tsai, Yu-Lung (Chienkuo Tech. Univ), Lin, Ying-Nan
(Chienkuo Tech. Univ)
10:50-11:10 SuA1E.3

The Study of Prevent Embarrassment in Elevator Via PIC (I), pp. 526-530.
Chin, Yuan-Chieh (Chienkuo Tech. Univ), Pan, Kuan-Chieh (Chienkuo Tech. Univ), Lai, Yue-Huang (Chienkuo Tech. Univ), Hung,
Chih-Yu (Chienkuo Tech. Univ), Lin, Deng-Chung (Chienkuo Tech. Univ)
11:10-11:30 SuA1E.4

Application of Adaptive Neural Network for Virtual Measurement System in Power Signal Analysis (I), pp. 531-535
Chin, Yuan-Chieh (Chienkuo Tech. Univ), Chen, Cheng-Chu (Chienkuo Tech. Univ), Chin, Yu-Han (National Chung Cheng Univ)
11:30-11:50 SuA1E.5

Using GM(0, N) to Evaluate the Current State of Non-Financial Banks in Taiwan (I), N/A
Chin, Yuan-Chieh (Chienkuo Tech. Univ), Wen, Kun-Li (Chienkuo Tech. Univ), Hsieh, Meng-Hung (Chienkuo Tech. Univ), Chang,
Kun-Yuan (Chienkuo Tech. Univ), Chao, Chi-Jul (Chienkuo Tech. Univ) [NO SHOW]

SuP1A
Sensing and Circuit (1)
13:00-13:20 SuP1A.1

Sukprasert, Pakorn (The Univ. of Tokyo), Nguyen, Binh Minh (The Univ. of Tokyo), Fujimoto, Hiroshi (The Univ. of Tokyo)
**SuP1A.2**

*Reduction of Phase Shifting for Range Expansion in Magnetic Resonance Coupling-Based Distance Sensor with Adjustable Sensing Range*, pp. 548-553.

Nakamura, Sousuke (Chuo Univ), Namiki, Masato (Chuo Univ), Hashimoto, Hideki (Chuo Univ)

**SuP1A.3**


Tangawa, Akira (Shizuoka Univ), Maeshima, Yusuke (Shizuoka Univ), Takemae, Tadashi (Shizuoka Univ), Kosugi, Yukio (Tokyo Inst. of Tech), Hongo, Minoru (Shinsyu Univ)

**SuP1A.4**


Takahashi, Kazuhiko (Doshisha Univ), Kawanobe, Yoshie (Doshisha Univ), Nishiwaki, Naoki (Doshisha Univ), Sugimoto, Iwao (Tokyo Univ. of Tech)

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**SuP1B**

**Robotic Systems (2)**

13:00-13:20

*Bottom Dressing by a Life-Sized Humanoid Robot Provided Failure Detection and Recovery Functions*, pp. 564-570.

Yamazaki, Kimitoshi (Shinshu Univ), Nagahama, Kotaro (The Univ. of Tokyo), Okada, Kei (The Univ. of Tokyo), Inaba, Masayuki (The Univ. of Tokyo), Oya, Ryosuke (The Univ. of Tokyo)

13:20-13:40

*Unfolding an Item of Rectangular Clothing Using a Single Arm and an Assistant Instrument*, pp. 571-576.

Yuba, Hiroyuki (Shinshu Univ), Yamazaki, Kimitoshi (Shinshu Univ)

13:40-14:00

*Cooperative Robot Software Development through the Internet*, pp. 577-582.

Yakushin, Dmitry (Ritsumeikan Univ), Lee, Joo-Ho (Ritsumeikan Univ)

14:00-14:20

*Project on Development of a Robot System for Random Picking –Grasp/Manipulation Planner for a Dual-Arm Manipulator–*, pp. 583-589.

Harada, Kensuke (AIST), Yoshimi, Takashi (AIST), Kita, Yasuyo (AIST), Nagata, Kazuyuki (AIST), Yamanobe, Natsuki (AIST), Ueshiba, Toshio (AIST), Satoh, Yutaka (AIST), Masuda, Takeshi (AIST), Takase, Ryuichi (AIST), Nishi, Takao (AIST), Nagami, Takeshi (AIST), Kawai, Yoshihiro (AIST), Nakamura, Osamu (AIST)

14:20-14:40

*Development of an Indirect-Type Teleoperation Interface for Biped Humanoid Robots*, pp. 590-596.

Nakaoka, Shin'ichiro (AIST), Morisawa, Mitsuharu (National Inst. of AIST), Kaneko, Kenji (National Inst. of AIST), Kajita, Shuuji (National Inst. of AIST), Kanehiro, Fumio (National Inst. of AIST)

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**SuP1C**

**OS4 Vehicle Technology (2)**

13:00-13:20

*Discussion on Validity of Lugged Wheel Model and Evaluation Method (I)*, pp. 597-602.

Mizukami, Noriaki (Chuo Univ), Iizuka, Kojiro (Shinshu Univ), Kunii, Yasuharu (Chuo Univ)

13:20-13:40


Higa, Shoya (Tohoku Univ), Nagaoka, Kenji (Tohoku Univ), Nagatani, Keiji (Tohoku Univ), Yoshida, Kazuya (Tohoku Univ)

13:40-14:00

*Development of Rover Designed to Climb Steep Slope of Uncompacted Loose Sand*, pp. 609-614.

Najmuddin, Ahmad (Ibaraki Univ), Fukuoka, Yasuhiro (Ibaraki Univ), Aoshima, Shinichi (Ibaraki Univ)

14:00-14:20


Bekhti, Mohammed Abdessamad (SHIZUOKA Univ), Kobayashi, Yuichi (Shizuoka Univ), Matsumura, Kazuki (SHIZUOKA Univ)

14:20-14:40

*Lane Surface Identification Based on Reflectance Using Laser Range Finder*, pp. 621-625.

Caceres Hernandez, Danilo (Univ. of Ulsan), Hoang, Van-Dung (Univ. of Ulsan), Jo, Kang-Hyun (Univ. of Ulsan)
SuP1D
OS8 Human Activity Assistive Technology (1)

13:00-13:20 SuP1D.1
Sasaki, Daisuke (Okayama Univ), Takaiwa, Masahiro (Okayama Univ)

Kobayashi, Norihiro (Hokkaido Univ), Tanaka, Takayuki (Hokkaido Univ)

13:40-14:00 SuP1D.3
Electric-Powered Glove for CCI Patients to Extend Their Upper-Extremity Function (I), pp. 638-643.
Kudo, Seiya (Nagasaki Univ), Oshima, Kotaro (Chuo Univ), Azarono, Mai (Chuo Univ), Hayashi, Yuki (Chuo Univ), Moromugi, Shinji (Chuo Univ), Higashi, Tosio (Nagasaki Univ), Takeoka, Atsushi (Nagasaki Univ), Ishihara, Masahiro (Tomei Brace Co), Ishimatsu, Takakazu (Nagasaki Univ)

14:00-14:20 SuP1D.4
Hasegawa, Yasuhiisa (Nagoya Univ), Ozawa, Kohei (Univ. of Tsukuba)

14:20-14:40 SuP1D.5
Facilitation of Telepresence Robot Turn-Takings by Gesture Exaggeration (I), pp. 650-654
Hasegawa, Komei (Univ. of Tsukuba), Nakauchi, Yasushi (Univ. of Tsukuba)

SuP1E
Decision Making Systems

13:00-13:20 SuP1E.1
Learning Sufficient Representation for Spatio-Temporal Deep Network Information Filter, pp. 655-658
Hu, Yuhuang (Univ. of Malaya), Neoh, Dickson (Univ. Tenaga Nasional), Mohamed Sahari, Khairul Salleh (Univ. Tenaga Nasional (UNITEN)), Loo, Chu Kiong (Univ. of Malaya)

13:20-13:40 SuP1E.2
Sidoti, David (Univ. of Connecticut), Martinez Ayala, Diego Fernando (Univ. of Connecticut), Sankavaram, Muni Sravanth (Univ. of Connecticut), Han, Xu (Univ. of Connecticut), Mishra, Manisha (Univ. of Connecticut), An, Woosun (SIMNET Co), Kellmeyer, David (Spawar), Hansen, Jim (Naval Res. Lab), Pattipati, Krishna (Univ. of Connecticut)

13:40-14:00 SuP1E.3
Neural Network-Based Objectives Prioritization for Multi-Objective Economic Dispatch in Microgrids, N/A.
Lazzerini, Beatrice (Univ. of Pisa), Pistolesi, Francesco (Univ. of Pisa) [NO SHOW]

14:00-14:20 SuP1E.4
Research on Fault Diagnosis of Turbine Generator Unit Based on Improved CPN Neural Network, pp. 672-677.
Peng, Daogang (Shanghai Univ. of Electric Power), Qian, Yuliang (Shanghai Univ. of Electric Power), Zhang, Hao (Shanghai Univ. of Electric Power), Xia, Fei (Shanghai Univ. of Electric Power)

14:20-14:40 SuP1E.5
Minowa, Hirotsugu (Okayama Univ)

SuP2A
Sensing and Circuit (2)

15:00-15:20 SuP2A.1
A Prototype Force Sensing Unit for a Capacitive-Type Force-Torque Sensor, pp. 684-689.
Somlor, Sophon (Waseda Univ), Schmitz, Alexander (Waseda Univ), Hartanto, Richard Sahala (Waseda Univ), Sugano, Shigeki (Waseda Univ)

15:20-15:40 SuP2A.2
Mai, Jingeng (Beihang Univ), Zhang, Lin (Beihang Univ), Fu, Zheng (Beihang Univ), He, Yuxun (Beihang Univ), Tao, Fei (Beihang Univ), Wang, Qining (Peking Univ)

15:40-16:00 SuP2A.3
Ahmed, Mahmoud (Cairo Univ), Elshebeary, Mahmoud (Cairo Univ), Kishk, Mustafa (Cairo Univ), Abdel-Bary, Eslam (Cairo Univ),
### SuP2A

#### Aerial Systems

**16:00-16:20**  
**SuP2A.4**  
**Utilizing Flash-Memory SSD for Developing Hybrid Filesystem**, pp. 700-705.  
Kim, Taehoon (Sejong Univ), No, Jaechun (Sejong Univ)

### SuP2B

#### Aerial Systems

**15:00-15:20**  
**SuP2B.1**  
**Control of Position and Attitude of the Tethered X4-Flyer**, pp. 706-711.  
Ouchi, Yusuke (Okayama Univ), Kinoshita, Keisuke (Okayama Univ), Watanabe, Keigo (Okayama Univ), Nagai, Isaku (Okayama Univ)

**15:20-15:40**  
Ito, Kohei (Kanazawa Tech. Coll), Ohya, Akihisa (Univ. of Tsukuba), Han, Justin (Kanazawa Tech. Coll)

**15:40-16:00**  
**Tracking and Control of a Small Unmanned Aerial Vehicle Using a Ground-Based 3D Laser Scanner**, pp. 718-723.  
Pratama, Ryan Arya (Univ. of Tsukuba), Ohya, Akihisa (Univ. of Tsukuba)

**16:00-16:20**  
Zheng, Enhao (Peking Univ), Mai, Jingeng (Beihang Univ), Wang, Qining (Peking Univ)

### SuP2C

#### Plant Engineering

**15:00-15:20**  
Alnaimi, Firas B. Ismail (Univ. Tenaga Nasional), Yee, Chaw Chu (Nordic Flow Control Pte Ltd), Mohamed Sahari, Khairul Salleh (Univ. Tenaga Nasional (UNITEN))

**15:20-15:40**  
**Integration, Navigation and Exploration of Plant Topology Networks Using the Property-Graph Model**, pp. 743-748.  
Dorantes Romero, David (Abb As), Thornhill, Nina F. (Imperial Coll. London)

**15:40-16:00**  
Arayawat, Suvishchan (King Mongkut's Inst. of Tech. Ladkrabang), Thepmanee, Teerawat (King Mongkut's Inst. of Tech. Ladkrabang), Julsereewong, Prasit (King Mongkut's Inst. of Tech. Ladkrabang), Julsereewong, Amphawan (King Mongkut's Inst. of Tech. Ladkrabang)

**16:00-16:20**  
Chen, Yu-Tso (National United Univ), Ko, Yu-Chi (National United Univ)

### SuP2D

#### OS8 Human Activity Assistive Technology (2)

**15:00-15:20**  
Imamura, Yumeko (Hokkaido Univ), Tanaka, Takayuki (Hokkaido Univ), Ayusawa, Ko (Aist), Yoshida, Eiichi (National Inst. of AIST)

**15:20-15:40**  
**Consideration on Mechanical Properties of a Redundant Drive Manipulator for Reducing the Endpoint Inertia (I)**, pp. 767-772.  
Goto, Takaaki (Ritsumeikan Univ), Dobashi, Hiroki (Ritsumeikan Univ), Nagai, Kiyoshi (Ritsumeikan Univ)

**15:40-16:00**  
Ishizaki, Kodai (Toyama Prefectural Univ), Koyanagi, Kenichi (Toyama Prefectural Univ), Motoyoshi, Tatsuo (Toyama Prefectural Univ), Masuta, Hiroyuki (Toyama Prefectural Univ), Oshima, Toru (Toyama Prefectural Univ)
SuP2D.4 Verification of Device Modes of a Strength Training Machine Using an Electrorheological Fluid Brake (I), pp. 779-784.
Yamamoto, Yuta (Toyama Prefectural Univ), Koyanagi, Ken’ichi (Toyama Prefectural Univ), Kimura, Yoshinori (Osaka Univ), Koyanagi, Maki (Osaka Electro-Communication Univ), Inoue, Akio (ER-Tec Co), Motoyoshi, Tatsuo (Toyama Prefectural Univ), Masuta, Hiroyuki (Toyama Prefectural Univ), Oshima, Toru (Toyama Prefectural Univ)

SuP2D.5 Consideration on a New BCI Method Using EEG to Detect Motion Intention (I), pp. 785-789.
Shimizu, Takuya (Ritsumeikan Univ), Dobashi, Hiroki (Ritsumeikan Univ), Ito, Koji (Tokyo Inst. of Tech), Nagai, Kiyoshi (Ritsumeikan Univ)

SuP2E Learning and Recognition

Youn, SeungGeun (ChungBuk National Univ), Lee, YounAe (Chungbuk National Univ), Park, Tae-Hyoung (Chungbuk National Univ)

Arima, Kouki (Kyushu Univ), Okada, Nobuhiro (Kitayushu Univ), Tsuji, Yasutaka (Kyushu Univ), Kiguchi, Kazuo (Kyushu Univ)

15:40-16:00 SuP2E.3 Reduction of Fish’s Learning Speed by Chaos and Randomness in Antagonistic Relationship of Robot and Fish, pp. 802-807.
Mori, Keita (Okayama Univ), Minami, Mamoru (Okayama Univ), Yanou, Akira (Okayama Univ)

16:00-16:20 SuP2E.4 Recognition of Regulation Writing Characters by Accelerometer in Smart Phone Based on HMM, pp. 808-813.
Li, Yang (Harbin Engineer Univ), Tobe, Yoshito (Aoyama Gakuin Univ), Murase, Keisuke (Aoyama Gakuin Univ), Zhao, Yunlong (Harbin Engineering Univ)