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Organizer: Lee, Joo-Ho	Ritsumeikan Univ

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Co-Chair: Ravankar, Ankit	Faculty of Engineering, Hokkaido Univ
Organizer: Ravankar, Ankit	Faculty of Engineering, Hokkaido Univ
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Organizer: Liu, Hongbin	King's Coll. London
09:30-09:50	WeA1B.1
<i>Effect of the Tactile Contact Lens on the Rubber Artificial Skin Layer with a Strain Gauge (I)</i> , pp. 397-402. Ando, Mitsuhiro (Univ. of Tsukuba), Mochiyama, Hiromi (Univ. of Tsukuba), Takei, Toshinobu (Hirosaki Univ), Fujimoto, Hideo (Nagoya Inst. of Tech)	
09:50-10:10	WeA1B.2
<i>Distance Control of Soft Robot Using Proximity Sensor for Beating Heart Surgery</i> , pp. 403-408. Liu, Yuting (Shanghai Jiao Tong Univ), Xie, Hui (Shanghai Jiao Tong Univ), Wang, Hesheng (Shanghai Jiao Tong Univ), Chen, Weidong (Shanghai Jiao Tong Univ), Wang, Jingchuan (Shanghai Jiao Tong Univ)	
10:10-10:30	WeA1B.3
<i>Evolving Soft Robots to Execute Multiple Tasks with Combined-CPPN-NEAT (I)</i> , pp. 409-414. Kimura, Tomoya (The Univ. of Tokyo), Jin, Ziqiao (Univ. of Tokyo), Niiyama, Ryuma (Univ. of Tokyo), Kuniyoshi, Yasuo (The Univ. of Tokyo)	
10:30-10:50	WeA1B.4
<i>Function-Selectable Tactile Sensing System with Morphological Change (I)</i> , pp. 415-420. Ho, Van (Ryukoku Univ), Yamashita, Hideyasu (Ryukoku Univ), Shibuya, Koji (Ryukoku Univ), Wang, Zhongkui (Ritsumeikan Univ), Hirai, Shinichi (Ritsumeikan Univ), Nagase, Jun-ya (Ryukoku Univ), Tsutsumi, Kazuyoshi (Ryukoku Univ)	

10:50-11:10	WeA1B.5
<i>Food Texture Sensing by Using an Imitation Tongue with Variable Elasticity (I)</i> , pp. 421-427. Shibata, Akihide (Osaka Univ), Ikegami, Akira (San-Ei Gen F.F.I., Inc), Nakao, Satomi (San-Ei Gen F.F.I., Inc), Ishihara, Sayaka (San-Ei Gen F.F.I., Inc), Nakauma, Makoto (San-Ei Gen F.F.I., Inc), Higashimori, Mitsuru (Osaka Univ)	
11:10-11:30	WeA1B.6
<i>SNR Modeling and Material Dependency Test of a Low-Cost and Simple to Fabricate 3D Force Sensor for Soft Robotics</i> , pp. 428-433. Tomo, Tito Pradhono (Waseda Univ), Wong, Wai Keat (Waseda Univ), Schmitz, Alexander (Waseda Univ), Kristanto, Harris (Waseda Univ), Somlor, Sophon (Waseda Univ), Hwang, Jinsun (Waseda Univ), Sugano, Shigeki (Waseda Univ)	
WeA1C	Room C
Motion Planning and Generation (Regular Session)	
Chair: Hanai, Ryo	National Inst. of Industrial Science and Tech
Co-Chair: Tatsuno, Kyoichi	Meijo Univ
09:30-09:50	WeA1C.1
<i>A Framework for Systematic Accumulation, Sharing and Reuse of Task Implementation Knowledge</i> , pp. 434-440. Hanai, Ryo (National Inst. of Industrial Science and Tech), Harada, Kensuke (Osaka Univ)	
09:50-10:10	WeA1C.2
<i>A Robot Controller for Power Distribution Line Maintenance Robot Working by Task-Level Command</i> , pp. 441-446. Kurabe, Koichi (Meijo Univ), Kato, Yukiko (Meijo Univ), Koike, Motoki (Meijo Univ), Jinno, Kouji (Meijo Univ), Yamashita, Kyohei (Meijo Univ), Kito, Kazumasa (Meijo Univ), Tahri Sqalli, Mohammed (Al Akhawayn Univ. in Ifrane), Tatsuno, Kyoichi (Meijo Univ)	
10:10-10:30	WeA1C.3
<i>IBVS and EMG Based Reach-To-Grasp Task Planning Method for a Trans-Humeral Prosthesis</i> , pp. 447-452. Dannangoda Gamage, Kanishka Madusanka (Univ. of Moratuwa), Gopura, Ranathunga Arachchilage Ruwan Chandra (Univ. of Moratuwa), Amarasinghe, Ranjith (Ritsumeikan Univ), Mann, George K. I. (Memorial Univ. of Newfoundland)	
10:30-10:50	WeA1C.4
<i>Identifying the Relevant Frames of Reference in Programming by Demonstration Using Task-Parameterized Gaussian Mixture Regression</i> , pp. 453-458. Alizadeh, Tohid (Nazarbayev Univ), Malekzadeh, Milad S. (Bielefeld Univ. CoR-Lab)	
10:50-11:10	WeA1C.5
<i>Model-Based Footstep Planning for Tripod Gait on 3D Field</i> , pp. 459-464. Kobayashi, Daiki (Osaka City Univ), Takubo, Tomohito (Osaka City Univ), Ueno, Atsushi (Osaka City Univ)	
11:10-11:30	WeA1C.6
<i>Algorithm for Optimizing Attack Motions for Air-Hockey Robot by Two-Step Look Ahead Prediction</i> , pp. 465-470. Igeta, Kazuki (Chiba Univ), Namiki, Akio (Chiba Univ)	
WeA1D	Room D
Medical Applications (Regular Session)	
Chair: Pfeiffer, Jonas H.	Tech. Univ. Munich
Co-Chair: Tsujita, Teppei	National Defense Acad. of Japan
09:30-09:50	WeA1D.1
<i>Automated Risk Detection for Medical Device Networks with Hard Real Time Requirements</i> , pp. 471-476. Dietz, Christian (Tech. Univ. München), Lüddemann, Tobias (Tech. Univ. of Munich), Dingler, Max Emanuel (Tech. Univ. München), Lueth, Tim C. (Tech. Univ. München)	
09:50-10:10	WeA1D.2
<i>A New Module Combining Two Tracking Cameras to Expand the Workspace of Surgical Navigation Systems</i> , pp. 477-482. Pfeiffer, Jonas H. (Tech. Univ. Munich), Borbáth, Áron (Pentland Firth Software GmbH), Dietz, Christian (Tech. Univ. München), Lueth, Tim C. (Tech. Univ. München)	
10:10-10:30	WeA1D.3
<i>An Approach towards Compositional Behavior Specification of Medical Device Networks</i> , pp. 483-489. Dingler, Max Emanuel (Tech. Univ. München), Ortiz, Diego (Tech. Univ. of Munich), Dietz, Christian (Tech. Univ. München), Lueth, Tim C. (Tech. Univ. München)	
10:30-10:50	WeA1D.4
<i>A Viscoelastic Model of Brain Parenchyma for Haptic Brain Surgery Simulations</i> , pp. 490-495. Chen, Xiaoshuai (Hokkaido Univ), Sase, Kazuya (Hokkaido Univ), Konno, Atsushi (Hokkaido Univ), Tsujita, Teppei (National Defense Acad. of Japan)	
10:50-11:10	WeA1D.5
<i>Buttock Dummy with Force Sensors for Assessment of Deep Tissue Injury Risk</i> , pp. 496-501. Kanaya, Kohei (Waseda Univ), Ogata, Kunihiro (National Inst. of Advanced Industrial Science and Tech), Nakayama, Tsuyoshi	

(National Rehabilitation Center for Persons with Disabilities), Ono, Eiichi (The National Rehabilitation Center for Persons with Disabilities), Umezu, Mitsuo (Waseda Univ)

11:10-11:30 WeA1D.6

Improving Phases Segmentation in Surgical Workflow Using Topic Model for Visual Motion Words, pp. 502-507.

TRAN, DINH TUAN (Graduate School of Information Science and Engineering, Ritsumei), Sakurai, Ryuhei (Ritsumeikan Univ), Yamazoe, Hirotake (Ritsumeikan Univ), Lee, Joo-Ho (Ritsumeikan Univ)

WeA1E Room E

Communication and Interface (Regular Session)

Chair: Kamezaki, Mitsuhiro

Waseda Univ

Co-Chair: Murayama, Toru

Inst. of Tech. Wakayama Coll

09:30-09:50 WeA1E.1

Evaluation of Ease of Target Position Recognition in Interaction with Midair Images by Using Mist Screen, pp. 508-513.

Komizunai, Shunsuke (Hokkaido Univ), Wada, Kyohei (Hokkaido Univ), Kijima, Takuya (Hokkaido Univ), Konno, Atsushi (Hokkaido Univ)

09:50-10:10 WeA1E.2

Analysis of Operation Strategy in a Multi-Operator Control System for Four-Arm Disaster Response Robot OCTOPUS, pp. 514-519.

Chen, Kui (Waseda Univ), Kamezaki, Mitsuhiro (Waseda Univ), Katano, Takahiro (Waseda Univ), Ishida, Tatsuzo (Waseda Univ), Seki, Masatoshi (Kikuchi Seisakusho Co., Ltd), Ken, Ichiryu (Kikuchi Seisakusho Co., Ltd), Sugano, Shigeki (Waseda Univ)

10:10-10:30 WeA1E.3

A Laughing-Driven Pupil Response System for Inducing Empathy, pp. 520-525.

Egawa, Shoichi (Okayama Prefectural Univ), Sejima, Yoshihiro (Okayama Prefectural Univ), Sato, Yoichiro (Okayama Prefectural Univ), Watanabe, Tomio (Okayama Prefectural Univ)

10:30-10:50 WeA1E.4

Mental Fatigue Estimation Based on Luminance Change of Facial Image, pp. 526-531.

Kawamura, Ryosuke (Osaka Univ), Takemura, Noriko (Osaka Univ), Sato, Kosuke (Osaka Univ)

10:50-11:10 WeA1E.5

Distributed Velocity Constraints for Multi-Agent System to Preserve Communication Range, pp. 532-537.

Murayama, Toru (Inst. of Tech. Wakayama Coll)

11:10-11:30 WeA1E.6

Development of Interface for Teleoperation of Humanoid Robot Using Task Model Method, pp. 538-543.

Ogawa, Masaya (The Univ. of Tokyo), Honda, Katsuya (Tokyo Univ), Sato, Yoshihiro (The Univ. of Tokyo), Oishi, Takeshi (The Univ. of Tokyo), Ikeuchi, Katsushi (Microsoft Res)

WeA1F Room F

Vision System 1 (Regular Session)

Chair: Minami, Mamoru

Okayama Univ

Co-Chair: Kagami, Shingo

Tohoku Univ

09:30-09:50 WeA1F.1

Super High-Speed Vision Platform That Can Process 1024x1024 Images in Real Time at 12500 Fps, pp. 544-549.

Sharma, Atul (Hiroshima Univ), Shimasaki, Kohei (Hiroshima Univ), Gu, Qingyi (Hiroshima Univ), Chen, Jun (Hiroshima Univ. Graduated School of Engineering), Aoyama, Tadayoshi (Hiroshima Univ), Takaki, Takeshi (Hiroshima Univ), Ishii, Idaku (Hiroshima Univ), Tamura, Koichi (Photron Limited), Tajima, Kenji (Photron Limited)

09:50-10:10 WeA1F.2

Assist Control for Ball Catching Using High Speed Vision on a Master Slave Robot, pp. 550-555.

Liu, Yang (Chiba Univ), Maruyama, Tomohiro (Chiba Univ), MATSUZAKA, Ayaka (Chiba Univ), Matsumoto, Yosuke (Chiba Univ), Namiki, Akio (Chiba Univ)

10:10-10:30 WeA1F.3

Estimation of a Large Relative Rotation between Two Images of a Fast Spinning Marker-Less Golf Ball, pp. 556-561.

Imai, Yuta (Tohoku Univ), Kagami, Shingo (Tohoku Univ), Hashimoto, Koichi (Tohoku Univ)

10:30-10:50 WeA1F.4

High-Frame-Rate Region-Based Visual Tracking on CPU: An Implementation Perspective, pp. 562-567.

Kagami, Shingo (Tohoku Univ), Hashimoto, Koichi (Tohoku Univ)

10:50-11:10 WeA1F.5

Tracking Performances of Eye-Vergence Visual Servoing System under Different Light Condition with Evolutionary Pose Tracking, pp. 568-573.

Tian, Hongzhi (Okayama Univ), Kou, Yejun (Okayama Univ), Funakubo, Ryuki (Okayama Univ), Minami, Mamoru (Okayama Univ)

11:10-11:30 WeA1F.6

Visual Feedback Control of a Vehicle Based on MHE Directly Using Partial Marker Information, pp. 574-579.

Takahashi, Manami (Tokyo City Univ), Nonaka, Kenichiro (Tokyo City Univ), Sekiguchi, Kazuma (Tokyo City Univ)

WeP1A		Room A
Autonomous Mobile Robots and Intelligent Systems: Recent Trends and Applications 2 (Organized Session)		
Chair: Emaru, Takanori		Hokkaido Univ
Co-Chair: Ravankar, Ankit	Faculty of Engineering, Hokkaido Univ	
Organizer: Ravankar, Ankit	Faculty of Engineering, Hokkaido Univ	
Organizer: Emaru, Takanori		Hokkaido Univ
Organizer: Kobayashi, Yukinori		Hokkaido Univ
Organizer: Hoshino, Yohei		Kitami Inst. of Tech
Organizer: YANG, LIANGLIANG		Kitami Inst. of Tech
13:45-14:05		WeP1A.1
<i>Self-Localization Method Using a Single Omni-Directional Camera Based on Landmark Positions and Arrangement (I)</i> , pp. 580-585.		
Hoshino, Yohei (Kitami Inst. of Tech), YANG, LIANGLIANG (Kitami Inst. of Tech), Suzuki, Soichiro (Kitami Inst. of Tech)		
14:05-14:25		WeP1A.2
<i>Calibration of an Auto-Steering System Using a Line-Type Laser and a Camera without Necessary of Running the Vehicle (I)</i> , pp. 586-591.		
YANG, LIANGLIANG (Kitami Inst. of Tech), Hoshino, Yohei (Kitami Inst. of Tech), Suzuki, Soichiro (Kitami Inst. of Tech), Cao, Ying (Kitami Inst. of Tech)		
14:25-14:45		WeP1A.3
<i>Autonomous Maneuvers of a Robotic Tractor for Farming (I)</i> , pp. 592-597.		
Wang, Hao (Hokkaido Univ), Noguchi, Noboru (Hokkaido Univ)		
14:45-15:05		WeP1A.4
<i>Design of a Weight-Compensated and Coupled Tendon-Driven Articulated Long-Reach Manipulator (I)</i> , pp. 598-603.		
Horigome, Atsushi (Tokyo Inst. of Tech), Endo, Gen (Tokyo Inst. of Tech), Suzumori, Koichi (Tokyo Inst. of Tech), Nabae, Hiroyuki (Tokyo Inst. of Tech)		
15:05-15:25		WeP1A.5
<i>Turning Method That Minimizes Turning Radius for Snake-Like Robot with Active Joint and Active Wheels (I)</i> , pp. 604-609.		
Komura, Hirotaka (Tokyo Inst. of Tech), Endo, Gen (Tokyo Inst. of Tech), Nabae, Hiroyuki (Tokyo Inst. of Tech), Suzumori, Koichi (Tokyo Inst. of Tech)		
WeP1B		Room B
System Integration in Soft Robotics 2 (Organized Session)		
Chair: Hirai, Shinichi		Ritsumeikan Univ
Co-Chair: Niiyama, Ryuma		Univ. of Tokyo
Organizer: Ho, Van		Ryukoku Univ
Organizer: Hirai, Shinichi		Ritsumeikan Univ
Organizer: Liu, Hongbin		King's Coll. London
13:45-14:05		WeP1B.1
<i>Micro CT Study of Soft/Elastic Structures of Beetle Toward Insect-Inspired Robotics (I)</i> , pp. 610-615.		
Niiyama, Ryuma (Univ. of Tokyo)		
14:05-14:25		WeP1B.2
<i>Hose-Free Pneumatic Bags-Muscle Driven by Gas-Liquid Conversion (I)</i> , pp. 616-621.		
HIRAMITSU, Tatsuhiro (Tokyo Inst. of Tech), Wada, Akira (Tokyo Inst. of Tech), Suzumori, Koichi (Tokyo Inst. of Tech), Nabae, Hiroyuki (Tokyo Inst. of Tech), Endo, Gen (Tokyo Inst. of Tech)		
14:25-14:45		WeP1B.3
<i>An Underactuated Continuum Robot Using Crossing Cable Configurations (I)</i> , N/A		
Case, Jennifer (Purdue Univ), White, Edward (Purdue Univ), SunSpiral, Vytas (SGT Inc. / NASA Ames Res. Center), Kramer, Rebecca (Purdue Univ)		
14:45-15:05		WeP1B.4
<i>A 3D Printed Soft Gripper Integrated with Curvature Sensor for Studying Soft Grasping (I)</i> , pp. 629-633.		
Wang, Zhongkui (Ritsumeikan Univ), Hirai, Shinichi (Ritsumeikan Univ)		
15:05-15:25		WeP1B.5
<i>Development of Axial Extension Actuator for Narrow Pipe Inspection Endoscopic Robot (I)</i> , pp. 634-639.		
Yamazaki, Shota (Chuo-Univ), Tanise, Yuki (Chuo Univ), Yamada, Yasuyuki (Chuo Univ), Nakamura, Taro (Chuo Univ)		

WeP1C	Room C
Enhancing Active Learning through Computer Supported Collaborative Learning (CSCL) 1 (Organized Session)	
Chair: Takahashi, Hirotaka	Nagaoka Univ. of Tech
Co-Chair: Akiduki, Takuma	Toyohashi Univ. of Tech
Organizer: Takahashi, Hirotaka	Nagaoka Univ. of Tech
Organizer: Akiduki, Takuma	Toyohashi Univ. of Tech
13:45-14:05	WeP1C.1
<i>A Portable CSCL System "edutab Box" with an Autonomous Wireless Network (I)</i> , pp. 640-645.	
Mizukoshi, Kazutaka (Digital Alliance Co., Ltd), Oshima, Takayuki (Higashiaoyama Elementary School and the Joint Graduate School In), mizuochi, yoshiaki (Affiliation (Joetsu Univ. of Education)), Yatsushiro, Kazuhiro (Yamanshi Prefecural Univ)	
14:05-14:25	WeP1C.2
<i>Development of CSCL System with Usability for Lower Elementary School Grade Students (I)</i> , pp. 646-651.	
Oshima, Takayuki (Higashiaoyama Elementary School and the Joint Graduate School In), mizuochi, yoshiaki (Affiliation (Joetsu Univ. of Education)), Yatsushiro, Kazuhiro (Yamanshi Prefecural Univ), Mizukoshi, Kazutaka (Digital Alliance Co., Ltd)	
14:25-14:45	WeP1C.3
<i>A Case Study of the Tendency about Teacher's Behavior in Visualization of Learning Situations Utilizing Synchronous CSCL in Active Learning (I)</i> , pp. 652-657.	
Sakakibara, Norihisa (Joetsu Univ. of Education), mizuochi, yoshiaki (Affiliation (Joetsu Univ. of Education)), Yatsushiro, Kazuhiro (Yamanshi Prefecural Univ), Mizukoshi, Kazutaka (Digital Alliance Co., Ltd)	
14:45-15:05	WeP1C.4
<i>A Study Regarding the Effects of Synchronous CSCL Use Involving Tablet-Type Terminals in Arithmetic Class and through Practical Experience with Fractions Using Edutab (I)</i> , pp. 658-663.	
Furuya, Tatsuro (Yamanashi Municipal Tekisen Elementary School), mizuochi, yoshiaki (Affiliation (Joetsu Univ. of Education)), Yatsushiro, Kazuhiro (Yamanshi Prefecural Univ), Mizukoshi, Kazutaka (Digital Alliance Co., Ltd)	
WeP1D	Room D
Control Technology (Regular Session)	
Chair: Hanajima, Naohiko	Muroran Inst. of Tech
Co-Chair: Nakauchi, Yasushi	Univ. of Tsukuba
13:45-14:05	WeP1D.1
<i>Design and Implementation of PSO Based LQR Control for Inverted Pendulum through PLC</i> , pp. 664-669.	
Howimanporn, Suppachai (Mongkut's Univ. of Tech. North Bangkok, Faculty of Tech), Thanok, Sunphong (King Mongkut's Univ. of Tech. North Bangkok,), Chookaew, Sasithorn (Rajamangala Univ. of Tech. Phra Nakhon), Sootkaneung, Warin (Rajamangala Univ. of Tech. Phra Nakhon)	
14:05-14:25	WeP1D.2
<i>Speed Control Technique of Conveyor Using PSO Based PID Controller with Programmable Logic Controller</i> , pp. 670-675.	
Howimanporn, Suppachai (Mongkut's Univ. of Tech. North Bangkok, Faculty of Tech), Thanok, Sunphong (King Mongkut's Univ. of Tech. North Bangkok,), Chookaew, Sasithorn (Rajamangala Univ. of Tech. Phra Nakhon), Sootkaneung, Warin (Rajamangala Univ. of Tech. Phra Nakhon)	
14:25-14:45	WeP1D.3
<i>Maximum Tracking Errors in PD-Controlled Robotic Manipulators</i> , pp. 676-681.	
Kim, Jung Hoon (Korea Inst. of Science and Tech), Hur, Sung-moon (Korea Inst. of Science & Tech. (KIST)), Oh, Yonghwan (Korea Inst. of Science & Tech. (KIST))	
14:45-15:05	WeP1D.4
<i>Adaptive Robust Control of the Surface Mounting Equipment with Dynamic Friction Fompensation</i> , pp. 682-687.	
Lu, Linlin (Univ. of Science and Tech. of China), Sun, Peng (Hefei Inst. of Physical Science, Chinese Acad. of Science), Luo, MinZhou (Chinese Acad. of Sciences), Feng, Baolin (Inst. Ofadvanced ManufacturingTechnology, HefeiInstitutes Of)	
15:05-15:25	WeP1D.5
<i>Evaluation of Positioning Control System Using Relative Displacement Observer for Precise Positioning Stages</i> , pp. 688-693.	
Ogawa, Hironori (Hitachi, Ltd), Kobayashi, Yukinori (Hokkaido Univ), Kageyama, Kogen (Hokkaido Univ), Emaru, Takanori (Hokkaido Univ), Odai, Masaki (Hitachi, Ltd)	
WeP1E	Room E
Adaptive Robot Systems and Intelligent Human - Machine Interaction (Organized Session)	
Chair: Thomessen, Trygve	Ppm As
Co-Chair: Sziebig, Gabor	UiT - the Arctic Univ. of Norway
Organizer: Thomessen, Trygve	Ppm As
Organizer: Sziebig, Gabor	UiT - the Arctic Univ. of Norway
Organizer: Niitsuma, Mihoko	Chuo Univ

13:45-14:05	WeP1E.1
<i>Case Study: Optimization of End-Of-Line Packaging in Fishery Industry (I)</i> , pp. 694-699. Sziebig, Gabor (UiT - the Arctic Univ. of Norway), Kerezovic, Tanja (UiT - the Arctic Univ. of Norway)	
14:05-14:25	WeP1E.2
<i>A Vibrotactile Navigation Aid for Remote Operation of an Industrial Robot (I)</i> , pp. 700-705. Hatano, Takashi (Chuo Univ), Niitsuma, Mihoko (Chuo Univ), Thomessen, Trygve (Ppm As), Horvath, Csongor Mark (Budapest Univ. of Tech. and Ec)	
14:25-14:45	WeP1E.3
<i>Control Strategy for an Industrial Process Monitoring Robot</i> , pp. 706-710. Zimber, Fabian (Friedrich-Alexander-Univ. Erlangen-Nürnberg), Horvath, Csongor Mark (Budapest Univ. of Tech. and Ec), Thomessen, Trygve (Ppm As), Franke, Jörg (Univ. of Erlangen-Nuremberg)	
14:45-15:05	WeP1E.4
<i>An Approach to Learn Hand Movements for Robot Actions from Human Demonstrations</i> , pp. 711-716. Pham, Ngoc Hung (Shibaura Inst. of Tech), Yoshimi, Takashi (Shibaura Inst. of Tech)	
15:05-15:25	WeP1E.5
<i>Development of Basic Functions for a Following Robot in a Human Gathering Environment</i> , pp. 717-722. Andre, Harada (Shibaura Inst. of Tech), Rebecca, Rolim (Shibaura Inst. of Tech), Fujimoto, Kazuma (Shibaura Inst. of Tech), Suzuki, Kaoru (Shibaura Inst. of Tech), Matsuhira, Nobuto (Shibaura Inst. of Tech), Yamaguchi, Toru (Tokyo Metropolitan Univ)	
15:25-15:45	WeP1E.6
<i>Touchless Human-Mobile Robot Interaction Using a Projectable Interactive Surface</i> , pp. 723-728. Agarwal, Rishabh (IIT Delhi), Sharma, Pratyusha (Indian Inst. of Tech. Delhi), Saha, Subir Kumar (Indian Inst. of Tech. Delhi), Matsumaru, Takafumi (Waseda Univ)	

WeP1F	Room F
Vision System 2 (Regular Session)	
Chair: Umeda, Kazunori	Chuo Univ
Co-Chair: Namiki, Akio	Chiba Univ
13:45-14:05	WeP1F.1
<i>Origami Operations by Multifingered Robot Hand with Realtime 3D Shape Estimation of Paper</i> , pp. 729-734. Minowa, Ryo (Chiba Univ), Namiki, Akio (Chiba Univ)	
14:05-14:25	WeP1F.2
<i>Automatic Calibration of a Robot Manipulator and Multi 3D Camera System</i> , pp. 735-741. Miseikis, Justinas (Univ. of Oslo), Glette, Kyrre (Univ. of Oslo), Elle, Ole Jakob (Oslo Univ. Hospital), Torresen, Jim (Univ. of Oslo)	
14:25-14:45	WeP1F.3
<i>Recognition and Handling of Clothes with Different Pattern by Dual Hand-Eyes Robotic System</i> , pp. 742-747. Funakubo, Ryuki (Okayama Univ), Phyu, Khaing Win (Graduate School of Nature Science and Tech. Okayama Univ), Tian, Hongzhi (Okayama Univ), Minami, Mamoru (Okayama Univ)	
14:45-15:05	WeP1F.4
<i>Tracking Trajectory Control of Dual-Eyes Visual-Based Underwater Vehicle</i> , pp. 748-755. Mukada, Naoki (Graduate School of Natural Science Tech. Okayama Univ), Yonemori, Kenta (Okayama Univ), Myint, Myo (Okayama Univ), Lwin, Khin Nwe (Graduate School of Natural Science Tech. Okayama Univ), Yanou, Akira (Kawasaki Coll. of Allied Health Professions), Minami, Mamoru (Okayama Univ)	
15:05-15:25	WeP1F.5
<i>Three-Dimensional Mapping by Direct Estimation of a Small Motion Using Range Images and Optical Flow of Color Images</i> , pp. 756-761. Kimura, Masashi (Chuo Univ), Masuyama, Gakuto (Chuo Univ), Umeda, Kazunori (Chuo Univ)	
15:25-15:45	WeP1F.6
<i>Multi-Model Hypothesize-And-Verify Approach for Incremental Loop Closure Verification</i> , pp. 762-767. Tanaka, Kanji (Univ. of Fukui)	

WeP2A	
Vehicle Control (Regular Session)	
Chair: Nonaka, Kenichiro	Tokyo City Univ
Co-Chair: Ang Jr, Marcelo H	National Univ. of Singapore
16:00-16:20	WeP2A.1
<i>Experimental Verification of Model Predictive Tracking and Steering Control for the Vehicle Equipped with Coaxial Steering Mechanisms</i> , pp. 768-773. Itoh, Masato (Tokyo City Univ), Nonaka, Kenichiro (Tokyo City Univ), Sekiguchi, Kazuma (Tokyo City Univ)	

16:20-16:40	WeP2A.2
<i>An Inter-vehicular Distance Control Considering Path Tracking and Attitude Angular Error for Obstacle Avoidance</i> , pp. 774-779. Urayama, Kazunori, Kazunori (Tokyo City Univ. Graduate School), Nonaka, Kenichiro (Tokyo City Univ), Sekiguchi, Kazuma (Tokyo City Univ)	
16:40-17:00	WeP2A.3
<i>Compressive Change Retrieval for Moving Object Detection</i> , pp. 780-785. murase, tomoya (Univ. of FUKUI), Tanaka, Kanji (Univ. of Fukui)	
17:00-17:20	WeP2A.4
<i>System Integration: Application towards Autonomous Navigation in Cluttered Environments</i> , pp. 786-791. MENG, ZEHUI (National Univ. of Singapore), SUN, HAO (National Univ. of Singapore), Shen, Xiaotong (National Univ. of Singapore), Chen, Ziyue (National Univ. of Singapore), Ang Jr, Marcelo H (National Univ. of Singapore)	
17:20-17:40	WeP2A.5
<i>Vehicle Localization and Navigation on Region with Disappeared Lane Line Marking</i> , pp. 792-796. WEN, LIHUA (Univ. of Ulsan), Jo, Kang-Hyun (Univ. of Ulsan)	

WeP2B	Room B
Bio Systems (Regular Session)	
Chair: Chang, Peter I.	National Taiwan Univ. of Science and Tech
Co-Chair: Kamegawa, Tetsushi	Okayama Univ
16:00-16:20	WeP2B.1
<i>Effect of Mechanical Stimulation on Neurite Outgrowth of Dorsal Root Ganglion Neurons Toward Integrative Mechanobiologic Nerve Bridge</i> , pp. 797-802. Ishibshi, Yuya (Osaka Univ), Uesugi, Kaoru (Osaka Univ), Morishima, Keisuke (Osaka Univ)	
16:20-16:40	WeP2B.2
<i>Hemobarogram Subwave Component Pulse Signal Identification</i> , pp. 803-808. Chang, Peter I. (National Taiwan Univ. of Science and Tech), Liu, Meng-Kun (National Taiwan Univ. of Science and Tech), Su, Bo-Hao (National Taiwan Univ. of Science and Tech), CHANG, Chun-Fan (Chinese Culture Univ)	
16:40-17:00	WeP2B.3
<i>Continuous Decoding of Movement Onset and Offset of Sustained Movements from Cortical Activities</i> , pp. 809-814. Sun, Shiqi (Peking Univ), Cao, Xiya (Peking Univ), Wang, Qining (Peking Univ)	
17:00-17:20	WeP2B.4
<i>Adaptive Control Method for an Undulatory Robot Inspired from a Leech's Nervous System</i> , pp. 815-820. Yamano, Akio (Osaka Prefecture Univ), Shintani, Atsuhiko (Osaka Prefecture Univ), ITO, TOMOHIRO (Osaka Prefecture Univ), Nakagawa, Chihiro (Osaka Prefecture Univ)	
17:20-17:40	WeP2B.5
<i>Proposal of Helical Wave Propagate Motion for a Snake Robot to across a Branch on a Pipe</i> , pp. 821-826. Qi, wei (Okayama Univ), Kamegawa, Tetsushi (Okayama Univ), Gofuku, Akio (Okayama Univ)	

WeP2C	Room C
Enhancing Active Learning through Computer Supported Collaborative Learning (CSCL) 2 (Organized Session)	
Chair: Akiduki, Takuma	Toyohashi Univ. of Tech
Co-Chair: Takahashi, Hirotaka	Nagaoka Univ. of Tech
Organizer: Takahashi, Hirotaka	Nagaoka Univ. of Tech
Organizer: Akiduki, Takuma	Toyohashi Univ. of Tech
16:00-16:20	WeP2C.1
<i>Rubric Evaluation for Project Research As Active Learning in Super Science High School (I)</i> , pp. 827-831. Omae, Yuto (Japan Inst. of Sports Sciences), Mitsui, Takako (Yamanashi Eiwa Junior and Senior High School), Takahashi, Hirotaka (Nagaoka Univ. of Tech)	
16:20-16:40	WeP2C.2
<i>Application of Tablet Devices in a Chemical Laboratory at College of Technology (I)</i> , pp. 832-837. SATO, Hirotoshi (Kobe City Coll. of Tech), Fukumoto, Kozo (Univ. of the Ryukyus), Oshio, Aiko (Kobe City Coll. of Tech. (General Education))	
16:40-17:00	WeP2C.3
<i>Comparative Study of Passive and Active Learning Classes in Basic Mathematics Training for Electrical Engineering (I)</i> , pp. 838-843. Kikuchi, Takashi (Nagaoka Univ. of Tech), Yamashita, Satoshi (National Inst. of Tech. Kisarazu Coll), Suzuki, Michiharu (National Inst. of Tech. Kisarazu Coll), Ozawa, Kenji (National Inst. of Tech. Kisarazu Coll), Takahashi, Hirotaka (Nagaoka Univ. of Tech), Kimura, Munehiro (Nagaoka Univ. of Tech)	

17:00-17:20	WeP2C.4
<i>Active Learning of Kosen Mathematics Using KeTCindy (I)</i> , pp. 844-849. Yamashita, Satoshi (National Inst. of Tech. Kisarazu Coll)	
WeP2D	Room D
Multiple and Swarm Robots (Regular Session)	
Chair: Hirata, Yasuhisa	Tohoku Univ
Co-Chair: Komizunai, Shunsuke	Hokkaido Univ
16:00-16:20	WeP2D.1
<i>Realization of Swarm Formation Flying and Optimal Trajectory Generation for Multi-Drone Performance Show</i> , pp. 850-855. Kim, Hae-Jun (GIST), Ahn, Hyo-Sung (Gwangju Inst. of Science and Tech. (GIST))	
16:20-16:40	WeP2D.2
<i>Application of Exponential Extrapolation Method to Nth-Order Differential Equation</i> , N/A Shinnoh, Atsushi (Utsunomiya Univ), Chong, Nak Young (Japan Advanced Inst. of Sci. and Tech), Lee, Geunho (Univ. of Miyazaki)	
16:40-17:00	WeP2D.3
<i>Projection-Based Localization and Navigation Method for Multiple Mobile Robots with Pixel-Level Visible Light Communication</i> , pp. 862-868. Hiraki, Takefumi (The Univ. of Tokyo), Fukushima, Shogo (The Univ. of Tokyo), Naemura, Takeshi (The Univ. of Tokyo)	
17:00-17:20	WeP2D.4
<i>Formation Control of Multiple Passive Type Boats for Sea Surveillance</i> , pp. 869-874. Beglerovic, Halil (Tohoku Univ), Hirata, Yasuhisa (Tohoku Univ), Kosuge, Kazuhiro (Tohoku Univ)	
WeP2E	Room E
Integration Platform (Regular Session)	
Chair: Julsereewong, Amphawan	King Mongkut's Inst. of Tech. Ladkrabang
Co-Chair: Svinin, Mikhail	Kyushu Univ
16:00-16:20	WeP2E.1
<i>Effects of the Slope on the Motion of Spherical Roll/Slider Robot</i> , pp. 875-880. Tafrishi, Seyed Amir (Univ. of Sheffield), Svinin, Mikhail (Kyushu Univ), Esmaeilzadeh, Esmaeil (Univ. of Tabriz)	
16:20-16:40	WeP2E.2
<i>Comparative Study on Cascade Control Configuration in Engineering Phase for Analog System and FF System</i> , pp. 881-886. Khocharin, Narupon (King Mongkut's Inst. of Tech. Ladkrabang), Trisuwanawat, Thanit (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)	
16:40-17:00	WeP2E.3
<i>Cost Analyses and Optimization of a Fuel Cell Electric Vehicle</i> , pp. 887-892. Teng, Yu-Ting (National Taiwan Univ), Wang, Fu-Cheng (National Taiwan Univ)	
17:00-17:20	WeP2E.4
<i>The Design of Power Regulation Strategies for a Hybrid PEMFC Power System</i> , pp. 893-898. Chen, Po-Ju (National Taiwan Univ), Chen, Han-Che (National Taiwan Univ), Wang, Fu-Cheng (National Taiwan Univ)	
WeP2F	Room F
Field Robotics (Regular Session)	
Chair: Naruse, Keitaro	Univ. of Aizu
Co-Chair: Ravankar, Ankit	Faculty of Engineering, Hokkaido Univ
16:00-16:20	WeP2F.1
<i>Investigation of Weeding Ability and Plant Damage for Rice Field Weeding Robots</i> , pp. 899-905. Nakamura, Keita (Univ. of Aizu), Kimura, Minoru (Fukushima Agricultural Tech. Center), Anazawa, Takashi (Fukushima Agricultural Tech. Center), Takahashi, Taira (Fukushima Agricultural Tech. Center), Naruse, Keitaro (Univ. of Aizu)	
16:20-16:40	WeP2F.2
<i>Wind Direction-Based Path Planning for an Agricultural Unmanned Airboat Navigation</i> , pp. 906-911. Liu, Yufei (Hokkaido Univ), Noguchi, Noboru (Hokkaido Univ), Ishii, Kazunobu (Hokkaido Univ), Liang, Lingguang (Hokkaido Univ)	
16:40-17:00	WeP2F.3
<i>Development of Cooperative Multirotor System for High Altitude Data Collection – the Verification Experiment of Vision Guided Landing</i> , pp. 912-916. Punkapueang, Supaporn (Department of Mechanical Engineering, King Mongkut's Univ. of Tech. Thonburi)	

6 Wheeled Mars Rover Design for Terrain Traversing, Equipment Servicing, Astronaut Assistance and On-Board Testing, pp. 917-922.

Zahir, Ebad (American International Univ), Rahman, Md. Mahfuzur (American International Univ), Hossen, Md. Abir (American International Univ), Sarker, Ashik (American International Univ), Ata-E-Rabbi, H.M. (American International Univ), Ahmed, Zishan (American International Univ), Sagir, Chowdhury Miftah Mahmood (American International Univ), Iqbal, Shabab (American International Univ), Pramanik, Sashanka Kumar (American International Univ), Rahman, Md. Mezanur (American International Univ), Orni, Sefat Noor (American International Univ), Uddin, Md. Josim (American International Univ), Hassan, Md. Kamrul (American International Univ), Sarker, Nihar (American International Univ), Zim, Md. Shohanuzzaman (American International Univ), Nazimuddowla, MD (American International Univ), Mamun, Farhan (American International Univ), Mahmud, Minar (American International Univ)

Development of a Dense – Phase Conveying System of Lapillus, pp. 923-928.

Kashiwabara, Yuya (National Inst. of Tech. Hakodate Coll. Advanced Cou), Kobayashi, Hsuaaki (Tamagawa-Gumi Co., Ltd), Nakamuara, Takahiko (National Inst. of Tech. Hakodate Coll. Advanced Cou), Ohtsuka, Hirofumi (National Inst. of Tech. Kumamoto Coll. Advanced Cou), Hama, Katsumi (National Inst. of Tech. Hakodate Coll. Advanced Cou), Suzuki, Manabu (National Inst. of Tech. Hakodate Coll. Advanced Cou)