

# Advance Program

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1A01-1	Signal Processing (1)	642	Online Estimation of Complexity Using Variable Forgetting Factor	Koichi Sugisaki (Keio univ.), Hiromitsu Ohmori (Keio univ.)
1A01-2	Signal Processing (1)	553	Study on a Method of Generating a 3D Virtual Foot Model with Use of a Measuring Technique Based on Multiple Camera Image Data	Satoshi Kondo (Tokyo Univ. of Agriculture and Tech), Yasuhiro Akagi (Tokyo Univ. of Agriculture and Tech), Katsuhiro Kitajima (Tokyo Univ. of Agriculture and Tech)
1A01-3	Signal Processing (1)	650	Detection of Bearing Fault Using Hybrid Digital Filter	Shao Yimin (Chongqing Univ.), Hu Yumei (Chongqing Univ.), Wang Shemin (Chongqing Univ.), Zhou Xiaojun (Chongqing Univ.)
1A01-4	Signal Processing (1)	135	An Efficient DC-Notch FIR Filter Design	Kyoung Jae Kim (Hanyang Univ.), Sang Won Nam (Hanyang Univ.)
1A01-5	Signal Processing (1)	411	A New Efficient Matrix Spectral Factorization Algorithm	Lasha Ephremidze (Tokai Univ.), Gigla Janashia (Razmadze Mathematical Institute), Edem Lagvilava (Razmadze Mathematical Institute)
1A02-1	OS: Recent Advances in Mechanical Metrology (1)	56	Uncertainty Evaluation on the Fully-automated Sub-multiple Calibration in the Milligram Range	Masaaki Ueki (NMIJ), Kazunaga Ueda (NMIJ)
1A02-2	OS: Recent Advances in Mechanical Metrology (1)	473	High Accurate Creep Compensation Method for Load Cell	Makoto Makabe (Yamato Scale company), Toru Kohashi (Yamato Scale company)
1A02-3	OS: Recent Advances in Mechanical Metrology (1)	475	Frequency Analysis Method using the Adaptive Algorithm and Application to Dynamic Measurement of Mass and Weight	Yuuki Sasamoto (Osaka Prefectural College of Technology), Toshitaka Umemoto (Osaka Prefectural College of Technology), Motoyuki Adachi (Yamato Scale Co Ltd), Yoichiro Kagawa (Yamato Scale Co Ltd)
1A02-4	OS: Recent Advances in Mechanical Metrology (1)	10	Improved Working Efficiency of Force Standard Machine by Separating Alternative Weight Stacks	Toshiyuki Hayashi (AIST), Yoshihisa Katase (AIST), Hiroshi Maejima (AIST), Yukio Yamaguchi (AIST), Kazunaga Ueda (AIST), Yoshiyuki Hikichi (Chihodaseiko)
1A03-1	Identification and Estimation	578	Low-Cost Tachometer based on the Recursive Frequency Estimation for Automotive Applications	Ga Hyung choi (Yonsei Univ.), Won Sang Ra (Yonsei Univ.), Tae Sung Yoon (Changwon National Univ.), Jin Bae Park (Yonsei Univ.)
1A03-2	Identification and Estimation	1	Tracking Errors in the Steady State for a 3 Dimensional Tracking Using a Linear Filter	Yoshio Kosuge (Nagasaki Univ.)
1A03-3	Identification and Estimation	358	Some Extensions of the Monotonic Signal Estimation Method	Osamu Kobayashi (Yamaguchi Univ.), Yuji Wakasa (Yamaguchi Univ.), Kanya Tanaka (Yamaguchi Univ.), Takuya Akashi (Yamaguchi Univ.)
1A03-4	Identification and Estimation	14	Orientation Estimation by Error-State Extended Kalman Filter in Quaternion Vector Space	Mohammad Ahmadi (Shiraz Univ.), Alireza Khayatian (Shiraz Univ.), Paknush Karimaghaei (Shiraz Univ.)
1A03-5	Identification and Estimation	259	Development of Recognition System for Billet Identification	Changhyun Park (Pohang Univ.), SangCheul Won (Pohang Univ.)
1A03-6	Identification and Estimation	49	A New Approach for Harmonics Current Extraction For Nonlinear Loads	Aziza M. Zaki (ERI), Ahmed A. Mansour (ERI), Osama A. Mahgoub (Cairo Univ.), Essam E. Abu-ElZahab (Cairo Univ.)
1A05-1	Mechanical Systems Control (1)	51	Compound Passive Filter to Minimize Torque Ripples and EMI Noises in PMSM Drives	Kayhan Gulez (Yildiz Technical Univ.), Ali Ahmed Adam (Yildiz Technical Univ.)
1A05-2	Mechanical Systems Control (1)	570	Biped Walking Robot Using a Stick on Uneven Ground	Hideto Shimizu (Tokyo Denki Univ.), Yuki Wakazuki (Tokyo Denki Univ.), Yaodong Pan (Tokyo Denki Univ.), Katsuhisa Furuta (Tokyo Denki Univ.)
1A05-3	Mechanical Systems Control (1)	165	Damping Path Design of Liquid Container Transfer including Multiple Curve Sections	Yu Yoshida (GS of Shimane Univ.), Masafumi Hamaguchi (Shimane Univ.), Takao Taniguchi (Shimane Univ.)
1A05-4	Mechanical Systems Control (1)	236	Remote Bilateral Control of Master-slave Manipulators with an Environment Observer	Yuki Kakizoe (NAIST), Hisakazu Nakamura (NAIST), Hirokazu Nishitani (NAIST)
1A05-5	Mechanical Systems Control (1)	286	PLL/PID Motor Control System by Using Time-domain Operation of PWM Signal	Hidekazu Machida (Maizuru College of Technology), Fuminori Kobayashi (Kyushu Institute of Technology)
1A06-1	Nonlinear Control (1)	658	Global Asymptotic Stabilization of Nonlinear System with Multiple Singular Points Using Changeover of Control Lyapunov-Morse Function	Kazuki Takehara (Hokkaido Univ.), Takayuki Tsuzuki (Shimane Univ.), Yuh Yamashita (Hokkaido Univ.)
1A06-2	Nonlinear Control (1)	295	Simultaneous Swinging-Up and Stabilization of Double Furuta Pendulums	Noriko Matsuda (Tokyo Denki Univ.), Masaki Izutsu (Tokyo Denki Univ.), Katsuhisa Furuta (Tokyo Denki Univ.)
1A06-3	Nonlinear Control (1)	151	PID Control for Nonlinear Discretized Systems	Yoshifumi Okuyama (Humanitech Lab.)
1A06-4	Nonlinear Control (1)	347	Direct Design of Switching Control System by VRFT --Application to Vertical-type One-link Arm--	Shota Yabui (Mie Univ.), Kazuhiro Yabui (Mie Univ.), Junji Hirai (Mie Univ.)
1A06-5	Nonlinear Control (1)	113	A Novel Approach to the Nonlinear H-infinity Regulator Problem	Hiidenori Matsuzaki (Shinshu Univ.), Masayoshi Eguchi (unemployed), Yasunari Shidama (Shinshu Univ.)

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1A07-2	OS: Inverse Problems	168	Measurement of Space Variant PSF and Its Application to Restoring Severely Degraded Images	Tadashi Ito (Gunma Univ.), Rutsuko Ichikawa (Gunma Univ.), Ryotaro Koishi (Gunma Univ.), Yusaku Fujii (Gunma Univ.), Naoya Ohta (Gunma Univ.), Saburo Saitoh Saitoh (Gunma Univ.), Tsutomu Matsuura (Gunma Univ.), Takao Yamamoto (Gunma Univ.)
1A07-3	OS: Inverse Problems	250	The Method of High-Accuracy 3D Reconstruction for Oblique X-ray CT Images	Satoshi Yoshizawa (Keio Univ.), Toshiyuki Tanaka (Keio Univ.)
1A07-4	OS: Inverse Problems	421	On Distance Measurement Using Band-limited Noise	Noboru Nakasako (Kinki Univ.), Tetsuji Uebo (Kinki Univ.), Norimitsu Ohmata (Kinki Univ.), Atsushi Mori (Kinki Univ.)
1A07-5	OS: Inverse Problems	461	Acoustical Blind Source Separation based on Linear Advection Equation	Kenbu Teramoto (Saga Univ.), MD Tauhidul Islam Khan (Saga Univ.), Akito Uekihara (Saga Univ.)
1A08-1	Intelligent Control (1)	160	Double-Deck Elevator Systems using Genetic Network Programming based on Variance Information	Jin Zhou (Waseda Univ.), Lu Yu (Waseda Univ.), Shingo Mabu (Waseda Univ.), Kotaro Hirasawa (Waseda Univ.), Jinglu Hu (Waseda Univ.), Sandor Markon (FUJITEC Co.Ltd.)
1A08-2	Intelligent Control (1)	580	Acquisition of Fixed Wide View Field of a Biped Robot during a Walking Motion	Kousuke Yoshimi (Tohoku Univ.), Shun Ushida (Tohoku Univ.), Koichiro Deguchi (Tohoku Univ.)
1A08-3	Intelligent Control (1)	48	Adaptive Neural Network Based Controller for Direct Torque Control of PMSM with Minimum Torque Ripples	Kayhan Gulez (Yildiz Technical Univ.), Ali Ahmed Adam (Yildiz Technical Univ.)
1A08-4	Intelligent Control (1)	16	Fuzzy MRAC Controller Design for the Vane-Type Air Motor	Yean-Ren Hwang (National Central Univ.), Yu-Da Shen (National Central Univ.)
1A09-1	OS: Emerging Control Technologies	27	Home Network Development based on CORBA Middleware	Eko Binugroho Henfri (Pusan National Univ.), Jae Weon Choi (Pusan National Univ.), Young Bong Seo (Pusan National Univ.)
1A09-2	OS: Emerging Control Technologies	28	Transmission of Control Signal in Ocean Environment based on Adaptive Time-Reversal Processing	Jea Soo Kim (Korea Maritime Univ.), Jae Weon Choi (Pusan National Univ.), Y.S. Suh (Ulsan Univ.), Y.H. Byun (Korea Maritime Univ.), J.H. Cho (Korea Maritime Univ.)
1A09-3	OS: Emerging Control Technologies	29	Design of Disturbance Observer for Non-minimum Phase Systems Using PID Controllers	Young-Ik Son (Myongji Univ.), Hyungbo Shim (Seoul National Univ.), Nam H. Jo (Soongsil Univ.), Sung-Jong Kim (Myongji Univ.)
1A09-4	OS: Emerging Control Technologies	30	A Haptic Interface Using a Force-Feedback Joystick	Ae-Kyoung Ko (Pusan National Univ.), Joon-Young Choi (Pusan National Univ.)
1A09-5	OS: Emerging Control Technologies	31	Hierarchical Position Control of Expedition Robots	Duksun Shim (Chung-Ang Univ.), Cheolkwan Yang (Yuhan College), Jinwoo Park (Chung-Ang Univ.), Samuel Chang (Chung-Ang Univ.)
1A10-1	OS: Frontline of BIX (BioInformation eXchange) Research	62	Classification of Pesticide Residues in the Agricultural Products Based on Diffuse Reflectance IR Spectroscopy	Makio Tsukioka (Shinshu Univ.), Hiroaki Ishizawa (Shinshu Univ.), Tomohiro Takano (Shinshu Univ.), Hisaya Yamada (Yanmar Agricultural Equipment), Kumiko Nakagawa (Yanmar Agricultural Equipment)
1A10-2	OS: Frontline of BIX (BioInformation eXchange) Research	290	X-Ray Fluorescent and Mid-Infrared Spectroscopic Measurements of Vigor Information of Tomato Plant	Naoko Hayashi (Mie Univ.), Atsushi Hashimoto (Mie Univ.), Ken-ichi Suehara (Mie Univ.), Mikihito Kanou (Mie Univ.), Takaharu Kameoka (Mie Univ.), Takao Kumon (Kagome), Katsutoshi Hosoi (Kagome)
1A10-3	OS: Frontline of BIX (BioInformation eXchange) Research	648	Image Monitoring of Paddy Field using BIX Image Broker System	Yoshitaka Motonaga (Niigata Univ.), Nobukazu Iguchi (Kinki Univ.), Norikuni Otake (Niigata Univ.), Takaharu Kameoka (Mie Univ.)
1A10-4	OS: Frontline of BIX (BioInformation eXchange) Research	647	Architecture of the Advanced Field Servers	Masayuki Hirafuji (NARO), Hideo Yoichi (NARO), Haoming Hu (NARO), Tokihiro Fukatsu (NARO), Kei Tanaka (NARO)
1A11-1	OS: Micromechatronics for Biomedical Applications	539	Robust Control for Uncertain Systems Preceded by Hysteresis and Disturbances	Xinkai Chen (Shibaura Institute of Tech.), Takeshi Hisayama (Shibaura Institute of Tech.)
1A11-2	OS: Micromechatronics for Biomedical Applications	641	A Locomotive Microrobot for Biomedical Application	Qinxue Pan (Kagawa Univ.), Shuxiang Guo (Kagawa Univ.)
1A11-3	OS: Micromechatronics for Biomedical Applications	640	A Precision Parallel Micromechanism for Biomedical Applications	Jian Wang (Kagawa Univ.), Shuxiang Guo (Kagawa Univ.)
1A11-4	OS: Micromechatronics for Biomedical Applications	649	A Novel Tool Using SMA Actuator for Cell Puncturing	Changhai Ru (Harbin Engineering Univ.), Xihua Wang (Harbin Engineering Univ.), Shuxiang Guo (Kagawa Univ.)

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1A12-2	Intelligent Systems and Control	600	Fast Localization of Multi-targets in the Intelligent Space	Qinhe Wang (Univ. of Tokyo), Hideki Hashimoto (Univ. of Tokyo)
1A12-3	Intelligent Systems and Control	564	Obstacle Localization for a nonholonomic mobile robot Based on RFID Technology	Songmin Jia (Univ. of Electro-Communications), Jibuo Sheng (Univ. of Electro-Communications), Daisuke Chugo (Univ. of Electro-Communications), Kunikatsu Takase (Univ. of Electro-Communications)
1A12-4	Intelligent Systems and Control	599	Operation Skill Quantification for Mobile Vehicle Operation	Takanori Sasaki (Tokyo Denki Univ.), Akira Takeya (Konica Minolta IJ Technologies, Inc.), Hiroshi Igarashi (Tokyo Denki Univ.), Satoshi Suzuki (Tokyo Denki Univ.)
1A12-5	Intelligent Systems and Control	46	A Method for Reflecting User's Intention in Interactive Multi-Objective Optimization for Multi-Satellite Communication Planning	Hiromitsu Kato (Hitachi), Shin-ichi Nakasuka (Univ. of Tokyo)
1A14-1	OS: Observing Human	559	Measurement of the Posture of the Playing Children	Atsushi Ohga (Kagawa Univ.), Satoru Nagatomo (Kagawa Univ.), Ichiro Ishimaru (Kagawa Univ.), Seiji Hata (Kagawa Univ.)
1A14-2	OS: Observing Human	560	Proposal of a Method of Skin Region Detection by Two Near Wavelengths of Near Infrared	Taito Watanabe (Gifu Univ.), Kazuhiko Yamamoto (Gifu Univ.), Kunihiro Kato (Gifu Univ.)
1A14-3	OS: Observing Human	632	Firefly Capturing Method and Its Application to Performance Analysis of Athlete	Takayuki Fujiwara (Chukyo Univ.), Kohji Murofushi (Chukyo Univ.), Kagemoto Yuasa (Chukyo Univ.), Hiroyasu Koshimizu (Chukyo Univ.)
1A14-4	OS: Observing Human	653	An Attempt of Applying Quality Engineering Techniques to Adjust the S/N Ratio for Measurement and Modeling of a Human Hand Shape Using Highs Speed Range Finder	Kengo Ohnishi (Okayama Pref. Univ.), Ryutaro Imakiire (Kyoto Seisakusho)
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				Yuji Higashi (Fujimoto Hayasuzu Hsp.), Toshiyo Tamura (Chiba Univ.), Toshiro Fujimoto (Fujimoto Hayasuzu Hsp.), Kazuo Sasaki (Univ. of
1A15-2	OS: Ubiquitous Healthcare	109	The Home Health Care with the Ad-hoc Network System	Toshiyo Tamura (Chiba Univ.), Takahiro Kawada (Chiba Univ.), Masaki Sekine (Chiba Univ.)
1A15-3	OS: Ubiquitous Healthcare	336	Development of Non-invasive and Ambulatory Physiological Monitoring Systems for Ubiquitous Health Care	Shinobu Tanaka (Kanazawa Univ.), Kosuke Motoi (Kanazawa Univ.), Akira Ikarashi (Kanazawa Univ.), Masamichi Nogawa (Kanazawa Univ.), Yuji Higashi (Fujimoto Hayasuzu Hsp.), Hidetsugu Asano (Imizu City Hsp.), Ken-ichi Yamakoshi (Kanazawa Univ.)
1A15-4	OS: Ubiquitous Healthcare	364	Development of Real-Time Biological Data Collection System Using a Cellular Phone	David H. Hareva (Okayama Univ.), Tomoki Kitawaki (Okayama Univ.), Hisao Oka (Okayama Univ.), Takao Nakamura (Okayama Univ.), Hiroki Okada (Okayama Univ. Hsp.), Hiromi Kumon (Okayama Univ. Hsp.)
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1A16-2	Robot Control (1)	124	A Branch and Bound Method to the Continuous Time Model Elevator System with Full Information	Zhen Shen (Tsinghua Univ.), Qianchuan Zhao (Tsinghua Univ.)
1A16-3	Robot Control (1)	454	Mobile Robot Navigation by Center Following using Monocular Vision	Naoya Tada (Tottori Univ.), Takeshi Saitoh (Tottori Univ.), Ryosuke Konishi (Tottori Univ.)
1A16-4	Robot Control (1)	455	Voice Controlled Intelligent Wheelchair	Masato Nishimori (Tottori Univ.), Takeshi Saitoh (Tottori Univ.), Ryosuke Konishi (Tottori Univ.)
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1A17-2	Human Interface (1)	394	Target User Localization for a Service Robot Using Wireless LAN	Timoteo Idica (Univ. of Tsukuba), Akihisa Ohya (Univ. of Tsukuba)
1A17-3	Human Interface (1)	229	Suitable Checkpoints of Features Surrounding the Eye for Eye Tracking Using Template Matching	Shota Miyazaki (Toyama Prefectural Univ.), Hironobu Takano (Toyama Prefectural Univ.), Kiyomi Nakamura (Toyama Prefectural Univ.)

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1A17-5	Human Interface (1)	535	Wearable Handwriting Input Device Using Magnetic Field	Xinying Han (Kanazawa Univ.), Hiroaki Seki (Kanazawa Univ.), Yoshitsugu Kamiya (Kanazawa Univ.), Masatoshi Hikizu (Kanazawa Univ.)
1A17-6	Human Interface (1)	415	Laser Pointer as a Mouse	Toshiharu Wada (Shibaura Institute of Technology), Masanobu Takahashi (Shibaura Institute of Technology), Keiichiro Kagawa (NAIST), Jun Ohta (NAIST)
1B02-1	OS: Recent Advances in Mechanical Metrology (2)	643	Length Measurement for Moving Products on Conveyor Belt	Akihiro Watanabe (Utsunomiya Univ.), Takanori Yamazaki (Oyama National College of Technology), Hideo Ohnishi (Shinko Co.), Masaaki Kobayashi (Shinko Co.), Shigeru Kurosu (Crotech)
1B02-2	OS: Recent Advances in Mechanical Metrology (2)	524	Evaluation of Positioning Performance of a Fine-coarse Mechanism	Yoshitaka Morimoto (Utsunomiya Univ.), Yoshio Ichida (Utsunomiya Univ.), Ryunosuke Sato (Utsunomiya Univ.)
1B02-3	OS: Recent Advances in Mechanical Metrology (2)	376	Development of a New Controlled-Clearance Pressure Balance for Hydraulic High-Pressure Standard	Hiroaki Kajikawa (NMIJ/AIST), Tokihiko Kobata (NMIJ/AIST), Akira Ooiwa (NMIJ/AIST)
1B02-4	OS: Recent Advances in Mechanical Metrology (2)	377	Transfer Standard for High Pressure up to 1 GPa using Pressure Transducers	Tokihiko Kobata (AIST), Kazunori Ide (AIST)
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1B03-3	OS: Rangefinders	441	Three Dimensional Recognition of Environments for a Mobile Robot Using Laser Range Finder	Kiyoshi Nishimoto (Hiroshima Institute Technology), Atsunori Sagami (Sailor Pen Co., Ltd), Kouichi Kaneyama (Interface Co.)
1B03-4	OS: Rangefinders	246	Measurement Method of Optical Properties by Use of a Rangefinder	Kozo Ohtani (Hiroshima Inst. of Tech.), Daisuke Narita (SIGMA Corp.), Mitsuru Baba (Ibaraki Univ.)
1B03-5	OS: Rangefinders	248	A Rangefinding Approach for Speeding Up the Three-Dimensional Shape Measurement of a Specular Object	Kozo Ohtani (Hiroshima Inst. of Tech.), Mitsuru Baba (Ibaraki Univ.)
1B05-1	Robust Control (1)	344	Design of Reduced-order Weight for $H_{\infty}$ Loop Shaping Method of Vertical-type One-link Arm --Application to Gain-Scheduling Control--	Shu Katayama (Mie Univ.), Kazuhiro Yubai (Mie Univ.), Junji Hirai (Mie Univ.)
1B05-2	Robust Control (1)	44	Beyond The Small-Gain Paradigm: How to Make Use of The Phase Information of Uncertainty	Kang-Zhi Liu (Chiba Univ.)
1B05-3	Robust Control (1)	140	Modelling and Navigation Control of Autonomous Vehicles	Katsumi Moriwaki (Univ. Shiga Pref.), Katsuyuki Tanaka (Univ. Shiga Pref.)
1B05-4	Robust Control (1)	530	An Iterative Method for Output Feedback Mixed H2/H-infinity Control Problem	Yasushi Kami (Akashi National College of Tech.), Eitaku Nobuyama (Kyushu Institute of Tech.)
1B05-5	Robust Control (1)	13	Robust Nonlinear Control for Flexible Joint Robot Manipulators	Jae Young Lee (Hanyang Univ.), Je Sung Yeon (Hanyang Univ.), Jong Hyeon Park (Hanyang Univ.)
1B07-1	Adaptive Control (1)	162	Adaptive PID Control for Perfect Tracking Problem of MIMO	Kenichi Tamura (Keio Univ.), Hiromitsu Ohmori (Keio Univ.)
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1B07-3	Adaptive Control (1)	18	A Simple Redesign of Adaptive Control for Nonlinear Parametric Models with State Variable Filters	Yoshihiko Miyasato (Inst. of Statistical Mathematics)
1B07-4	Adaptive Control (1)	81	Self Tuning Control with Generalized Minimum Variance Control in Continuous Time Domain	Ryouta Hoshino (Tokyo Metropolitan Univ.), Yasuchika Mori (Tokyo Metropolitan Univ.)
1B07-5	Adaptive Control (1)	214	Genetic Network Programming with Control Nodes considering Breadth and Depth	Shinji Eto (Waseda Univ.), Shingo Mabu (Waseda Univ.), Kotaro Hirasawa (Waseda Univ.), Takayuki Huruzuki (Waseda Univ.)
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1B08-3	OS: Medical Care and Welfare Engineering as a Man-	197	Development of the Detection and Reporting Device for Patients' Getting Out of Bed using Ultrasonic Radar and Power Line Communication	Kazuo Haruyama (Ube National College of Technology), Kanya Tanaka (Yamaguchi Univ.), Yuji Wakasa (Yamaguchi Univ.), Takuya Akashi (Yamaguchi Univ.), You Yamada (Yamaguchi Univ.)
1B08-4	OS: Medical Care and Welfare Engineering as a Man-	289	Development of a Postural Supporting Device Using an Adaptive and Learning Balloon Actuator-sensor System	Ryota Kurozumi (Univ. of Tokushima), Toru Yamamoto (Hiroshima Univ.), Shoichiro Fujisawa (Univ. of Tokushima), Osamu Sueda (Univ. of Tokushima)
1B08-5	OS: Medical Care and Welfare Engineering as a Man-	293	Study on the Accessibility and Assistive Device Between Platforms and Trains for Manual Wheelchair User	Tsutomu Hashizume (Assistive Technology Research and Design), Hiroshi Kitagawa (Assistive Technology Research and Design), Ikuo Yoneda (Toyo Univ.), Shoichiro Fujisawa (Univ. of Tokushima), Osamu Sueda (Univ. of Tokushima)
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1B09-2	OS: AUN/Seed-Net Benchmark Problem on Control Eng.	234	Benchmark Problem on Control Engineering	Masaki Yamakita (Tokyo Inst. of Tech.), Manop Wongsaishawan (Chulalongkorn Univ.), Shinji Hara (Univ. of Tokyo)
1B09-3	OS: AUN/Seed-Net Benchmark Problem on Control Eng.	137	Stabilization of Rotary Double Inverted Pendulum using Robust Gain-Scheduling Control	Arviandy Gustrianto Aribowo (Institut Teknologi Bandung), Yul Yunazwin Nazaruddin (Institut Teknologi Bandung), Endra Joelianto (Institut Teknologi Bandung), Herman Yoseph Sutarto (Institut Teknologi Bandung)
1B09-4	OS: AUN/Seed-Net Benchmark Problem on Control Eng.	138	Robust Controller Design for a Rotary Double Inverted Pendulum using Linear Matrix Inequalities	Ha Hoang (Chulalongkorn Univ.), Manop Wongsaishawan (Chulalongkorn Univ.)
1B10-1	OS: Dependable System Design in Discrete Event Sys	59	An Initial Task Assignment Method for Tasks Assignment and Routing Problem	Yusuke Morihiro (Osaka Univ.), Toshiyuki Miyamoto (Osaka Univ.), Sadatoshi Kumagai (Osaka Univ.)
1B10-2	OS: Dependable System Design in Discrete Event Sys	73	Application of DES Theory to Verification of Software Components	Kunihiko Hiraishi (JAIST), Petr Kucera (JAIST)
1B10-3	OS: Dependable System Design in Discrete Event Sys	167	Inference-Diagnosability: Nonconvergence and Other Complexity Results	Shigemasa Takai (Kyoto Inst. of Tech.), Ratnesh Kumar (Iowa State Univ.)
1B10-4	OS: Dependable System Design in Discrete Event Sys	430	Local/Global Fault Diagnosis of Event-Driven Systems based on Bayesian Network and Timed Markov Model	Shinkichi Inagaki (Nagoya Univ.), Tatsuya Suzuki (Nagoya Univ.), Mitsuo Saito (Nagoya Univ.), Takeshi Aoki (Nagoya Municipal Industrial Research)
1B10-5	OS: Dependable System Design in Discrete Event Sys	488	A Study on the Decomposition of Transition Firing Sequence Problems for Petri Nets	Shun Yoshie (Osaka Univ.), Tatsushi Nishi (Osaka Univ.), Masahiro Inuiguchi (Osaka Univ.)
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1B11-2	Systems and Education	253	Extracting Feeling Information from Voice	Naoya Ikeda (Kitami Institute of Technology SVBL), Yoshitaka Fujiwara (Kitami Institute of Technology), Hideki Yoshida (Kitami Institute of Technology)
1B11-3	Systems and Education	20	Design of an Authoring Tool for Producing User-Adaptive Educational Material	Satoki Abe (KIT), Yoshitaka Fujiwara (KIT), Shin-ichiro Okada (Ibaraki Univ.), Yasunari Maeda (KIT), Hideki Yoshida (KIT)
1B11-4	Systems and Education	200	Parameter Conditions and Least Squares Identification of Single-input Single-output Convex Fuzzy System	Tae-Wook Kim (POSTECH), Sang Y. Park (Intellix), Jin S. Lee (POSTECH)
1B11-5	Systems and Education	404	Fuzzy Rules Reduction for Discrete-time T-S Fuzzy Systems Based on Regional Piecewise Approach	Sheng-Ming Wu (National Central Univ.), Hung-Yuan Chung (National Central Univ.)
1B14-1	OS: Theory and Application of Histogram Frequency In	486	Current State and the Future of Image Features	Hiroyasu Koshimizu (Chukyo Univ.), Shunichiro Oe (Univ. of Tokushima)
1B14-2	OS: Theory and Application of Histogram Frequency In	618	Introduction of Frequency Image and applications	Toshiyuki Kashiwagi (Tokushima Prefectural Industrial Technology Center) Shunichiro Oe (Univ. of Tokushima)
1B14-3	OS: Theory and Application of Histogram Frequency In	631	On CFI and CFI-based Filters	Takayuki Fujiwara (Chukyo Univ.), Hiroyasu Koshimizu (Chukyo Univ.)
1B14-4	OS: Theory and Application of Histogram Frequency In	568	Visual Defects Classification System Using Co-occurrence Histogram Image	Teppi Iga (Kagawa Univ.), Takateru Tanaka (Kagawa Univ.), Jun-ichiro Hayashi (Kagawa Univ.), Seiji Hata (Kagawa Univ.)
1B15-1	OS: Interaction and Intelligence	224	Particle Swarm Intelligence Robot Vision for Multiple Human Tracking of A Partner Robot	Indra Adji Sulistijono (Tokyo Metropolitan Univ.), Naoyuki Kubota (Tokyo Metropolitan Univ.)
1B15-2	OS: Interaction and Intelligence	309	Information Support System with Case-Based Reasoning Using Motion Recognition in Human-Centered City	Tomo Okawa (Tokyo Metropolitan Univ.), Eri Sato (Tokyo Metropolitan Univ.), Toru Yamaguchi (Tokyo Metropolitan Univ.)

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1B15-4	OS: Interaction and Intelligence	230	Development of Muscle Suit for Supporting Manual Worker	Hiroshi Kobayashi (Tokyo Univ. of Science), Shou Hasegawa (Tokyo Univ. of Science), Hirokazu Nozaki (Tokyo Univ. of Science)
1B15-5	OS: Interaction and Intelligence	567	Pen Tablet Interface Using Surface Acoustic Wave Tactile Display	Masaya Takasaki (Saitama Univ.), HongXu Ji (Saitama Univ.), Hiroyuki Kotani (Saitama Univ.), Takeshi Mizuno (Saitama Univ.)
1B16-1	Mechatronics Systems	320	Control for Robust Standing of a Bipedal Robot by Sole Pressure	Junya Aoki (Hosei Univ.), Kajiro Watanabe (Hosei Univ.)
1B16-2	Mechatronics Systems	366	Control Strategy for the Massage Chair Based on Human Skin Elasticity	Tatsuya Teramae (Tottori Univ.), Daisuke Kushida (Tottori Univ.), Fumiaki Takemori (Tottori Univ.), Akira Kitamura (Tottori Univ.), Masashi Fujikawa (Family Co.,Ltd.), Hideshi Kondo (Family Co.,Ltd.)
1B16-3	Mechatronics Systems	61	Improved Performance of Sensorless Induction Motor Using Reactive Power	Jung Ho Han (Pusan National Univ.), Min Yeong Jang (Pusan National Univ.), Guen Bo Lee (Pusan National Univ.), Bong su Jang (Pusan National Univ.), Young Ahn Kwon (Pusan National Univ.)
1B16-4	Mechatronics Systems	306	Optimal Reduction Ratio Minimizing Dissipated Energy in a Servo System with Gear	Yiting Zhu (Shimane Univ.), Teruyuki Izumi (Shimane Univ.), Zuowei Li (Shimane Univ.), Hai Zhou (Shimane Univ.)
1B16-5	Mechatronics Systems	175	Development of Dynamics Modeling in the Vehicle Simulator for Road Safety Analysis	Kyung-Ho Bang (Myongji College)
1B17-1	Human Interface (2)	116	Investigation of Playing with Entertainment Robotic Pet of Pre-School Aged Child	Satoshi Yamamoto (Teikyo Univ.), Ryuhei Kimura (Teikyo Univ.)
1B17-2	Human Interface (2)	556	Estimation of Musical Pitch by Using Comb Filters for the Identification of Musical Instruments	Atsushi Todo (Kagawa Univ.), Hideyuki Sawada (Kagawa Univ.)
1B17-3	Human Interface (2)	459	Simultaneous Generation of Various Shaped Sound Spots with Multiple Linear Speaker Arrays	Kyosuke Horio (Tokyo Univ. of Science), Yuuk Ohtomo (Tokyo Univ. of Science), Hiroshi Takemura (Tokyo Univ. of Science), Hiroshi Mizoguchi (Tokyo Univ. of Science)
1B17-4	Human Interface (2)	458	Implementation of Luggable Linear Speaker Array System and Formation of Sound Spot	Yu Fukasawa (Tokyo Univ. of Science), Hiroshi Takemura (Tokyo Univ. of Science), Hiroshi Mizoguchi (Tokyo Univ. of Science)
1B17-5	Human Interface (2)	465	Computers' Synchronization for Large-Scale Loudspeaker Array System	Yuki Ohtomo (Tokyo Univ. of Science), Hiroshi Takemura (Tokyo Univ. of Science), Hiroshi Mizoguchi (Tokyo Univ. of Science)
1C01-1	Signal Processing in Medical and Biological Engineering	416	Liver Segmentation for CT Images using an Improved GGVF-Snake	Tianyi Gui (Beijing Univ. of Aeronautics and Astronautics), Lin-Lin Huang (Beijing Univ. of Aeronautics and Astronautics), Akinobu Shimizu (Tokyo Univ. of Agriculture and Technology)
1C01-2	Signal Processing in Medical and Biological Engineering	392	Adaptive Wiener Filter based on Gaussian Mixture Distribution Model for Denoising Chest X-ray CT	Motohiro Tabuchi (Okayama Univ.), Nobumoto Yamane (Okayama Univ.), Yoshitaka Morikawa (Okayama Univ.)
1C01-3	Signal Processing in Medical and Biological Engineering	239	Vein Emphasis Filter for Biometric Authentication.	Shinichiro Watanabe (Keio Univ.), Toshiyuki Tanaka (Keio Univ.), Eizaburo Iwata (Universal Robot Inc)
1C01-4	Signal Processing in Medical and Biological Engineering	272	Telemedicine System of Pathology Image using the Internet.	Ayako Suzuki (Keio Univ.), Toshiyuki Tanaka (Keio Univ.)
1C01-5	Signal Processing in Medical and Biological Engineering	318	Tumor Detection Method of Small Animals on X-ray Images	Yuji Karita (Keio Univ.), Toshiyuki Tanaka (Keio Univ.), Isao Kabaya (R-Tec Corp.), Mikuya Kano (R-Tec Corp.), Isamu Iwayoshi (Japan Small Animal Medical Research Center)
1C01-6	Signal Processing in Medical and Biological Engineering	243	A Neural Network based Computer-Aided Diagnosis of Emphysema using CT Lung Images	Kok Liang Tan (Keio Univ.), Toshiyuki Tanaka (Keio Univ.), Hidetoshi Nakamura (Tokyo Electric Power Hsp.), Akitoshi Ishizaka (Keio Univ.)
1C02-1	Opto-Electronic Engineering	22	Profiler Design with Multi-Sensor Data Fusion Methods	Jium-Ming Lin (Chung-Hua Univ.), Jiea-Chie Lin (Chung-Hua Univ.)
1C02-2	Opto-Electronic Engineering	232	The Influence of Probe Geometry on Muscle Oxygenation Measurement Using Spatially-resolved NIRS	Shingo Sone (Shizuoka Univ.), Masatsugu Niwayama (Shizuoka Univ.), Shigenobu Shinohara (Shizuoka Univ.)
1C02-3	Opto-Electronic Engineering	474	Development of 3-axis Distributed Forces Sensor for Walking Analysis	Masahiro Ueda (Tokyo Univ. of Science), Harutaka Uno (Tokyo Univ. of Science), Hiroshi Takemura (Tokyo Univ. of Science), Hiroshi Mizoguchi (Tokyo Univ. of Science)

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1C02-5	Opto-Electronic Engineering	651	Voice Separation Ability and Brain Activation Measurement Base on NIRS Analysis	Di Miao (Kochi Univ. of Technology), Shuoyu Wang (Kochi Univ. of Technology)
1C03-1	OS: Visual 3-D Measurement	355	A Proposal of Quasi Multi-Baseline-Stereo Measuring Method with Single Camera for Reducing Occlusion	Takashi Watanabe (Chukyo Univ.), Akira Kusano (Chukyo Univ.), Takayuki Fujiwara (Chukyo Univ.), Hiroyasu Koshimizu (Chukyo Univ.)
1C03-2	OS: Visual 3-D Measurement	170	3D Measurement of Flexible Objects by Robust Motion Stereo	Yukiyasu Domae (Hokkaido Univ.), Hidenori Takaaji (Hokkaido Univ.), Shun'ichi Kaneko (Hokkaido Univ.), Takayuki Tanaka (Hokkaido Univ.), Haruhisa Okuda (Mitsubishi Electric Corp.)
1C03-3	OS: Visual 3-D Measurement	514	A Implementation of Humanoid Vision &#8211;Analysis of Eye Movement and Implementation to Robot-	Masayuki Shamoto (Gifu Univ.), Kunihito Kato (Gifu Univ.), Kazuhiko Yamamoto (Gifu Univ.)
1C03-4	OS: Visual 3-D Measurement	36	Model Reconstruction based on Radial Reach Filter	Satoru Takahashi (Kagawa Univ.), Shunichi Kaneko (Hokkaido Univ.)
1C03-5	OS: Visual 3-D Measurement	120	Robust Focusing by Orientation Code Matching	Yuan Li (Hokkaido Univ.), Isao Ohmura (Hokkaido Industrial Research Institute), Hidenori Takaaji (Hokkaido Univ.), Shunichi Kaneko (Hokkaido Univ.), Takayuki Tanaka (Hokkaido Univ.)
1C03-6	OS: Visual 3-D Measurement	398	Nano-Level 3-D Measurement System Using Combination of 3-Wavelength Laser Lights	Masashi Nomura (Kagawa Univ.), Junichiro Hayashi (Kagawa Univ.), Shigeaki Morimoto (Co Ryusyosangyo), Sheiji Hata (Kagawa Univ.), Ichiro Ishimaru (Kagawa Univ.)
1C06-1	Medical and Welfare Systems	245	Omni-Directional Vision Sensor Based Behavior Monitoring System Using Bayesian Network	Hirokazu Seki (Chiba Institute of Technology), Atsushi Kiso (Chiba Institute of Technology), Susumu Tadakuma (Chiba Institute of Technology)
1C06-2	Medical and Welfare Systems	121	Measurement of Heart-beat of Train Operators	Yoshihiro Kawanishi (Hosei Univ.), Kouta Aizawa (Hosei Univ.), Kajiro Watanabe (Hosei Univ.)
1C06-3	Medical and Welfare Systems	217	Source Localization with EEG Data for BP Shows Major Activities in the Frontal Areas of the Brain	Rajkishore Prasad (UEC), Hovagiam Bakardjian (RIKEN, BSI), Cichocki Andrej (RIKEN BSI), Matsuno Fumitoshi (UEC)
1C06-4	Medical and Welfare Systems	419	Continuous Blood Pressure Measurement System Based on Low Cuff Pressure Approach	Cang-Yi Ding (National central Univ.), Cheng-Ning Huang (National central Univ.), Fang-Ming Yu (St. John's Univ.), Hung-Yuan Chung (National central Univ.)
1C06-5	Medical and Welfare Systems	63	Noninvasive Measurement of Blood Glucose Based on Optical Sensing and Internal Standard Method	Fujio Saiki (Shinshu Univ.), Hiroaki Ishizawa (Shinshu Univ.), Akinobu Muro (Shinshu Univ.), Eiji Toba (Shinshu Univ.)
1C06-6	Medical and Welfare Systems	227	3-D Reconstruction Using Color Stripe and Its Application to Grading of Facial Palsy	Junichi Sakaeda (Keio Univ.), Toshiyuki Tanaka (Keio Univ.)
1C07-1	Process Control	247	Design Method of Minimum-Phase State Decoupling Control with Feedforward Compensation	Takao Tomaru (Tokyo Metropolitan Univ.), Yasuchika Mori (Tokyo Metropolitan Univ.)
1C07-2	Process Control	511	Tuning Method of PID Controller for Desired Damping Coefficient	Yohei Okada (Toyohashi Univ. of Technology), Yuji Yamakawa (Univ. of Tokyo), Takanori Yamazaki (Oyama National College of Technology), Shigeru Kurosu (Crotech)
1C07-3	Process Control	173	Discrete Time Models of a Continuous Power System Stabilizer	Gaber Shabib Salman Ahmed (Univ. of Tsukuba), Noriyku Hori (Univ. of Tsukuba)
1C07-4	Process Control	603	Performance-Based PID Tuning and It's Experimental Evaluation	Yoshihiro Ohnishi (Kure College of Tech.), Toru Yamamoto (Hiroshima Univ.), Sirish L. Shah (Univ. of Alberta)
1C07-5	Process Control	53	Optimum Quality Design Support System for Steel Products using Locally-Weighted Regression Model	Hiroyasu Shigemori (JFE Steel Corp.), Shuji Kawamura (JFE Steel Corp.)
1C07-6	Process Control	555	Robust Model Predictive Control for Uncertain State Delayed System Using Polytope Dependent Lyapunov Function	Daehyun Ji (POSTECH), Woojong Yoo (POSTECH), Sangsu Yeh (POSTECH), Sanchul Won (POSTECH)
1C08-1	OS: Medical Care and Welfare Engineering as a Man-	348	Development of Breast Cancer Palpation Simulator Using Pneumatic Parallel Manipulator	Masahiro Takaiwa (Okayama Univ.), Toshiro Noritsugu (Okayama Univ.)

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1C08-3	OS: Medical Care and Welfare Engineering as a Man-	476	A Study of Powered Wheelchair Operation	Masayuki Booka (Hiroshima International Univ.), Osamu Sueda (Univ. of Tokushima), Shoichiro Fujisawa (Univ. of Tokushima)
1C08-4	OS: Medical Care and Welfare Engineering as a Man-	489	The Dynamically Analyzed About a Body Load of a Caregiver with Supine to Long Sitting	Masayuki Soma (Aomorizikeikai Hsp.), Shoichiro Fujisawa (Univ. of Tokushima), Osamu Sueda (Univ. of Tokushima)
1C08-5	OS: Medical Care and Welfare Engineering as a Man-	493	A New System to Measure Color Conspicuity: To Know What Color is Vivid to People with Low Visual Capacity	Seiji Mitani (National Institute of Technology and Evaluation), Toshiaki Yoshida (National Institute of Technology and Evaluation), Kouki Terada (Univ. of Tokushima), Shoichiro Fujisawa (Univ. of Tokushima), Osamu Sueda (Univ. of Tokushima)
1C09-1	OS: Recent Advances in Distributed Parameter Syster	41	Identification Problems for Semilinear Parabolic Evolution	Shin-ichi Nakagiri (Kobe Univ.)
1C09-2	OS: Recent Advances in Distributed Parameter Syster	171	Stabilization and a Class of Functionals for Linear Parabolic	Takao Nambu (Kobe Univ.)
1C09-3	OS: Recent Advances in Distributed Parameter Syster	235	On Observability of a Parallel-Flow Three-Fluid Heat Exchange Process	Hideki Sano (Kagoshima Univ.)
1C09-4	OS: Recent Advances in Distributed Parameter Syster	450	Passivity of Flexible Master-Slave Manipulator	Hiroyuki Ukai (Nagoya Institute of Technology), Yoshifumi Morita (Nagoya Institute of Technology), Takahito Mori (Gifu National College of Technology)
1C09-5	OS: Recent Advances in Distributed Parameter Syster	263	Tip Position Control of a Two Links Flexible Manipulator Based on the Dynamic Extension Technique	Toshimi Shimizu (Niigata Univ.), Minoru Sasaki (Gifu Univ.), Tokuji Okada (Niigata Univ.)
1C09-6	OS: Recent Advances in Distributed Parameter Syster	463	Stabilized Controller Design for a Flexible Stacker Crane	Minoru Sasaki (Gifu Univ.), Toshimi Shimizu (Niigata Univ.), Koji Ikai (Gifu Univ.), Satoshi Ito (Gifu Univ.)
1C09-7	OS: Recent Advances in Distributed Parameter Syster	126	A Finite-dimensional Uncertainty Modeling for Parabolic Distributed Parameter Systems	Jun Imai (Okayama Univ.)
1C10-1	OS: Unconventional Computation and Communication	195	Structural Organization in Network Artificial Chemistry by Node Programs and Token Flow	Hideaki Suzuki (NICT)
1C10-2	OS: Unconventional Computation and Communication	321	Multistate Part for Mesoscale Self-Assembly	Daiko Tsutsumi (Tokyo Institute of Technology), Satoshi Murata (Tokyo Institute of Technology)
1C10-3	OS: Unconventional Computation and Communication	332	Computation by Wave Propagation Simulated on Self-Timed Cellular Automaton	Tomoyuki Hisamori (Univ. of Hyogo), Teijiro Isokawa (Univ. of Hyogo), Ferdinand Peper (NICT), Naotake Kamiura (Univ. of Hyogo), Nobuyuki Matsui (Univ. of Hyogo)
1C10-4	OS: Unconventional Computation and Communication	469	Morphological Dynamics in a Proto-cell Model	Keisuke Suzuki (Univ. of Tokyo), Takashi Ikegami (Univ. of Tokyo)
1C10-5	OS: Unconventional Computation and Communication	479	On Information-Theoretical Formalization of Intracellular Communications Based on Linear Network Coding	Jian-Qin Liu (NICT)
1C11-1	OS: System Analysis and Intelligent Design of Multiple	508	Object Location Prediction Based on Motion Estimation and Traffic Density on Digital Video	Feng-Li Lian (National Taiwan Univ.), Ching-Chun Chiang (National Taiwan Univ.)
1C11-2	OS: System Analysis and Intelligent Design of Multiple	529	Actuation Design of 2D Rotational Modular Robots	Ming-Chiuan Shiu (National Taiwan Univ.), Hou-Tsan Lee (National Taiwan Univ.), Feng-Li Lian (National Taiwan Univ.), Li-Chen Fu (National Taiwan Univ.)
1C11-3	OS: System Analysis and Intelligent Design of Multiple	531	Development of a Patrol Robot for Home Security with Network Assisted Interactions	Jong-Hann Jean (St. John's Univ.)
1C11-4	OS: System Analysis and Intelligent Design of Multiple	538	The Time-Delay Effect of Multiple-Network Systems in NCS	Ching-Wen Cheng (National Chiao-Tung Univ.), Chien-Liang Lai (National Chiao-Tung Univ.), Bor-Chyun Wang (China Univ. of Technology), Pau-Lo Hsu (National Chiao-Tung Univ.)
1C11-5	OS: System Analysis and Intelligent Design of Multiple	536	LMI-Based Fuzzy Stabilization for Multiple Networked Systems	Kuang-Yow Lian (Chung-Yuan Christian Univ. and National Taipei Univ. of Technology), Wen-Tsung Yang (Chung-Yuan Christian Univ.), Yu-Jyun Huang (Chung-Yuan Christian Univ.)
1C11-6	OS: System Analysis and Intelligent Design of Multiple	527	A Matrix Approach for Determining Linear Time-Delay System Stability for All Time-Delay Sizes	Chun Pi Lin (National Taiwan Univ.), I Kong Fong (National Taiwan Univ.)
1C12-1	Systems Theory and Engineering	125	Development of an Energy-efficient LP Gas Pressure Regulator	Keigo Misawa (Hosei Univ.), Yusuke Miho (Hosei Univ.), Kajiro Watanabe (Hosei Univ.)

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1C12-3	Systems Theory and Engineering	432	Some Algorithms for Real-Time Generation of Non-Regular Sequences on One-Bit Inter-Cell-Communication Cellular Automata	Naoki Kamikawa (Osaka Electro-Communication Univ.), Hiroshi Umeo (Osaka Electro-Communication Univ.)
1C12-4	Systems Theory and Engineering	191	Proposal of Web System "NAP-Web" to Promise Next Access	Tomohiko Kaji (Kagawa Univ.), Keizo Saisho (Kagawa Univ.)
1C12-5	Systems Theory and Engineering	549	Development of PANGEA and SICE Academic Activity Support Systems	Takao Terano (Tokyo Institute of Technology), Yukichi Otsuka (Gakkai Net Co., Ltd.), Masashi Kugawa (Gakkai Net Co., Ltd.), Setsuya Kurahashi (Univ. of Tsukuba)
1C13-1	Neural Networks and their Application	378	Emergence of Robotic Intelligence by Chaos for Catching Fish	Jun Hirao (Univ. of Fukui), Mamoru Minami (Univ. of Fukui), Yasushi Mae (Osaka Univ.), Gao Jingyu (Univ. of Fukui)
1C13-2	Neural Networks and their Application	291	Control of Roving Robot Using Chaotic Dynamics in A Quasi-layered Recurrent Neural Network for Sensing and Driving	Li Yongtao (Okayama Univ.), Tai Tanaka (Okayama Univ.), Shigetoshi Nara (Okayama Univ.)
1C13-3	Neural Networks and their Application	3	Sliding Mode Control Using Neural Networks for SISO Nonlinear Systems	Muhammad Yasser (Chiba Univ.), Agus Trisanto (Chiba Univ.), Ayman Haggag (Chiba Univ.), Takashi Yahagi (Chiba Univ.), Hiroo Sekiya (Chiba Univ.), Jianming Lu (Chiba Univ.)
1C13-4	Neural Networks and their Application	183	Characteristic of Adaptive Type Neural Network Direct Controller with Separate Learning Rule	Takayuki Yamada (Ibaraki Univ.)
1C13-5	Neural Networks and their Application	424	Inverse Estimation of Joint Angles of Robot Arm by Network Inversion	Nanae Sekiguchi (Takushoku Univ.), Takehiko Ogawa (Takushoku Univ.), Hajime Kanada (Takushoku Univ.)
1C13-6	Neural Networks and their Application	581	Implicit estimation of other's intention without direct observation of actions in a collaborative task: Situation-Sensitive Reinforcement Learning	Tadahiro Taniguchi (Kyoto Univ.), Kenji Ogawa (Kyoto Univ.), Tetsuo Sawaragi (Kyoto Univ.)
1C14-1	OS: Biomimetic Approach in Robotics and Machines	72	Task Allocation with a Cooperative Plan for an Emotionally Intelligent System of Multi-Robots	Sajal C. Banik (Saga Univ.), Keigo Watanabe (Saga Univ.), Kiyotaka Izumi (Saga Univ.)
1C14-2	OS: Biomimetic Approach in Robotics and Machines	210	Multi-Preview Configuration Control for Redundant Manipulator by Future Reachability Evaluation	Zhang Tongxiao (Univ. of Fukui), Minami Mamoru (Univ. of Fukui), Song Wei (Univ. of Fukui)
1C14-3	OS: Biomimetic Approach in Robotics and Machines	390	CPG Based Control for Generating Stable Bipedal Trajectories Under External Perturbation	Guang Lei Liu (Saga Univ.), Maki K. Habib (Saga Univ.), Keigo Watanabe (Saga Univ.), Kiyotaka Izumi (Saga Univ.)
1C14-4	OS: Biomimetic Approach in Robotics and Machines	457	On-line Stable Evolutionary Recognition by Quaternion Motion-Feedforward Compensation	Wei Song (Univ. of Fukui), Mamoru Minami (Univ. of Fukui), Yasushi Mae (Univ. of Fukui), Seiji Aoyagi (Kansai Univ.)
1C14-5	OS: Biomimetic Approach in Robotics and Machines	636	Learning of Inverse-dynamics and Inverse-kinematics for Two-link SCARA Robot Using Neural Networks	Ken Onozato (Kansai Univ.), Yutaka Maeda (Kansai Univ.)
1C14-6	OS: Biomimetic Approach in Robotics and Machines	637	Hardware Design of Self-Organization for Clustering	Atsushi Ishihara (Kansai Univ.), Yutaka Maeda (Kansai Univ.)
1C16-1	Robot Control (2)	252	Initial State Observer Design for Self-localization of Mobile Robots	Muneaki Higuchi (NAIST), Hisakazu Nakamura (NAIST), Hirokazu Nishitani (NAIST)
1C16-2	Robot Control (2)	142	A Controller Design on Person Following Omni-directional Vehicle Robots	Prasarn Kiddee (Polytechnic Univ.), Akira Shimada (Polytechnic Univ.)
1C16-3	Robot Control (2)	297	Development of Autonomous Bike Robot with Balancer	Akihiro Murayama (Mechanical and Control Eng Tokyo Institut of Technology), Masaki Yamakita (Mechanical and Control Eng Tokyo Institut)
1C16-4	Robot Control (2)	657	Obstacle avoidance, arrest and guidance of a prismatic 2D object using multi agents	Ashish Dutta (IIT Kanpur), Pankaj Sharma (IIT Kanpur), Anupam Saxena (IIT Kanpur)
1C16-5	Robot Control (2)	667	Development of Walking Assist Equipment with Pneumatic Cylinder	Toshihiko Morichika (Meiji Univ.), Fumitaka Kikkawa (Meiji Univ.), Osamu Oyama (Meiji Univ.), Toshihiro Yoshimitsu (Kanagawa Institute of Technology)
1C17-1	Robot Arm and Manipulator	425	A Method of Real-time Coordination of Redundant Muscles for Multi-DOF Robot Joints	Masakazu Suzuki (Tokai Univ.), Takashi Mayahara (Tokai Univ.)
1C17-2	Robot Arm and Manipulator	483	Multiple Obstacles Avoidance for Kinematically Redundant Manipulators Using Jacobian Transpose Method	Kwang-Kyu Lee (Technical Univ. Munich), Yuta Komoguchi (Technical Univ. Munich), Marin Buss (Technical Univ. Munich)
1C17-3	Robot Arm and Manipulator	655	Motion Simulation of Robot Arm Using Reinforcement Learning	Oshiro Takahito (Hosei Univ.), Watanabe Kajiro (Hosei Univ.)
1C17-4	Robot Arm and Manipulator	518	Regenerating Human-like Arm Motions of Humanoid Robots for a Movable Object	ChangHwan Kim (KIST), Seungsu Kim (KIST), Syungkwon Ra (KIST), Bum Jae You (KIST)

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2A01-2	Neural Networks	329	Impact Perforation Image Processing using a Self-Organizing Map	Kenji Okubo (Takushoku Univ.), Takehiko Ogawa (Takushoku Univ.), Hajime Kanada (Takushoku Univ.)
2A01-3	Neural Networks	335	A BER Worst Pattern of Waveform Discrimination Using 2-7 Code Neural Networks	Kouta Miyazato (Takushoku Univ.), Takehiko Ogawa (Takushoku Univ.), Hajime Kanada (Takushoku Univ.), Shigeru Yoshizawa (Takushoku Univ.)
2A01-4	Neural Networks	350	EMG Pattern Classification using Spectral Estimation and Neural Network	Kyung Kwon Jung (Dongguk Univ.), Joo Woong Kim (Dongguk Univ.), Ki Hwan Eom (Dongguk Univ.), Hyun Kwan Lee (Honam Univ.), Sung Boo Chung (Seoil College)
2A01-5	Neural Networks	251	Medical Image Recognition of Abdominal X-ray CT Images by RB-GMDH-type Neural Network	Tadashi Kondo (Univ. of Tokushima), Junji Ueno (Univ. of Tokushima)
2A01-6	Neural Networks	280	Three Dimensional Medical Images of the Lungs and Brain Recognized by Artificial Neural Networks	Takaomi Matuki (Univ. of Tokushima), Tsuyoshi Kudo (Univ. of Tokushima), Tadashi Kondo (Univ. of Tokushima), Junji Ueno (Univ. of Tokushima)
2A02-1	OS: Human Factors in Vehicle Operation	38	Hybrid System Modeling of Human Driver in the Vehicle Following Task	Toshikazu Akita (Nagoya Univ.), Shinkichi Inagaki (Nagoya Univ.), Tatsuya Suzuki (Nagoya Univ.), Soichiro Hayakawa (Toyota Tech. Inst.), Nuio Tsuchida (Toyota Tech. Inst.)
2A02-2	OS: Human Factors in Vehicle Operation	70	Effect of Safe-driving Instructions on Driver Behavior at Non-signalized Intersection	Hiroaki Kosaka (NAIST), Nobuhisa Higashikawa (NAIST), Hirokazu Nishitani (NAIST)
2A02-3	OS: Human Factors in Vehicle Operation	339	Indices for Characterizing Driving Style and their Relevance to Car Following Behavior	Motonori Ishibashi (Mazda Motor Corp.), Masayuki Okuwa (Toyota Central RandD Labs. Inc.), Shun'ichi Doi (Kagawa Univ.), Motoyuki Akamatsu
2A02-4	OS: Human Factors in Vehicle Operation	487	Modeling and Validation of Carsickness Mechanism	Norimasa Kamiji (Kagawa Univ.), Yoshinori Kurata (Kagawa Univ.), Takahiro Wada (Kagawa Univ.), Shun'ichi Doi (Kagawa Univ.)
2A02-5	OS: Human Factors in Vehicle Operation	623	Characteristic of Depth Attention when Observer is in Dark Field	Ruting Xia (Kagawa Univ.), Masato Fukushima (Kagawa Univ.), Shun'ichi Doi (Kagawa Univ.), Takahiko Kimura (Osaka Univ.), Toshiaki Miura (Osaka Univ.)
2A03-1	OS: Evolutionary and Distributed Systems Towards Reliability	448	Waterbus Route Optimization by Pittsburgh-style Learning Classifier System	Keiji Sato (Univ. of Electro-Communications), Keiki Takadama (Univ. of Electro-Communications)
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2B12-5	Remote Sensing	184	Development of a Spectral Radiance Calibration Standard in the Shortwave Infrared (SWIR) Range	Yasuji Yamamoto (JAXA), Yasuhiro Nakajima (RESTEC)
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2B14-3	OS: Sound and Vibration Measurement	244	Shape Recognition for Transparent Objects Using Ultrasonic Sensor Array	Kozo Ohtani (Hiroshima Inst. of Tech.), Mitsuru Baba (Ibaraki Univ.)
2B14-4	OS: Sound and Vibration Measurement	271	Changes in Auditory Threshold of Hearing after Bhramari Pranayama	Rajkishore Prasad (Univ. of Electro-Communications), Koeike Takuji (Univ. of Electro-Communications), Matsuno Fumitoshi (Univ. of Electro-Communications)
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2B15-2	OS: SICE City	84	Development of a Search Robot - Sensor Fusion of RFID and Camera -	Shin-ichiro Kumagai (Tokyo Metropolitan Univ.), Yasuchika Mori (Tokyo Metropolitan Univ.)
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2B16-3	OS: Sensing, Control and Safety Systems for Smart V	216	Position/Force Control of Grinding Robot by Using Real-time Presumption of Constrained Condition	XU Weiwei (Univ. of Fukui), Minami Mamoru (Univ. of Fukui), Mae Yasushi (Univ. of Fukui)
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2B17-3	Human Interface (3)	311	Realization of High-reliability Non-contact Eye Input Device for Remote Nursing Support System	Akihiko Hata (Toyama Prefectural Univ.), Hironobu Takano (Toyama Prefectural Univ.), Kiyomi Nakamura (Toyama Prefectural Univ.)
2B17-4	Human Interface (3)	592	Development of Head-Mounted Eye Tracking System achieving Environmental Recognition Ability	Tetsuro Sugita (Tokyo Denki Univ.), Satoshi Suzuki (Tokyo Denki Univ.), Julian Kolodko (Company Name Undisclosed), Hiroshi Igarashi (Tokyo
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3A01-2	Systems Theory and Intelligent Systems	372	Stabilization of a Networked Control System under Bounded Disturbances with Unreliable Communication Links via Common Lyapunov Function Approach	Akihiro Ohori (NAIST), Kiminao Kogiso (NAIST), Kenji Sugimoto (NAIST)
3A01-3	Systems Theory and Intelligent Systems	147	Fault Detection in a Decentralized Navigation Architecture Using Parity Space Method	Ehsan Asadi (Malek-Ashtar Univ. of Tech.), Mehdi Jazini (Yazd Univ.), Mohammad Bozorg (Yazd Univ.)
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3A01-5	Systems Theory and Intelligent Systems	368	A Consideration of Nonlinear System Modeling using the Projection Method	Hiroshi Ohsaki (Tokyo Denki Univ.), Masami Iwase (Tokyo Denki Univ.), Shoshiro Hatakeyama (Tokyo Denki Univ.)
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3A02-2	Biological and Physiological Engineering (1)	547	Time Frequency Analysis of Biological Signals during Sleep	Takasi Tohara (Kyushu Institute of Technology)
3A02-3	Biological and Physiological Engineering (1)	130	Region Growing Method Using Edge Sharpness for Brain Ventricle Detection	Chulho Won (Kyungil Univ.), Dong Hun Kim (Kyungpook National Univ.)
3A02-4	Biological and Physiological Engineering (1)	546	Pattern Recognition of EEG Signals During Motor Imagery ~based on Directed Information Analysis~	Miyo Taniguchi (Kyushu Institute of Technology)
3A02-5	Biological and Physiological Engineering (1)	573	Time-Frequency Analysis of Human Sleep EEG and Its Application to Feature Extraction about Biological Rhythm	Makoto Maeda (Kyushu Institute of Technology), Akihiko Takajyo (Kyushu Institute of Technology), Katsuhiro Inoue (Kyushu Institute of Technology), Kousuke Kumamaru (Kyushu Institute of Technology), Shigeki Matsuoka (Univ. of Occupational and Environmental Health)
3A02-6	Biological and Physiological Engineering (1)	204	Parallel Factor Analysis can Decompose Human EEG during a Finger Movement Task	Hiroaki Mizuhara (Kyoto Univ.), Etsuji Yonehara (Okayama Univ.), Akio Gofuku (Okayama Univ.)
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3A03-2	OS: Computational Intelligence in Neural Networks (1)	308	On Hierarchical Self-Organizing Networks Visualizing Data Classification Processes	Hiroyuki Taniichi (Univ. of Hyogo), Naotake Kamiura (Univ. of Hyogo), Teijiro Isokawa (Univ. of Hyogo), Nobuyuki Matsui (Univ. of Hyogo)
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3A04-2	OS: Robust Robot Vision	575	Human Sensing using the Mutual Subspace Method with Multi-view Image	Kazuhiro Fukui (Univ. of Tsukuba), Xi Li (Univ. of Tsukuba)
3A04-3	OS: Robust Robot Vision	545	A Robust Face Tracking using Stereo Camera	Yoon-Hyung Lee (KIST), Mun-Ho Jeong (KIST), Joong-Jae Lee (KIST), Min-Seok Jie (KIST)
3A04-4	OS: Robust Robot Vision	92	Integration of Multiple Methods for Robust Object Recognition	Al Mansur (Saitama Univ.), Yoshinori Kuno (Saitama Univ.)
3A04-5	OS: Robust Robot Vision	598	Environmental Mapping for Mobile Robot by Tracking SIFT Feature Points Using Trinocular Vision	Yoko Ogawa (Ritsumeikan Univ.), Nobutaka Shimada (Ritsumeikan Univ.), Yoshiaki Shirai (Ritsumeikan Univ.)
3A04-6	OS: Robust Robot Vision	622	Structural Analysis of Multiple Building for Mobile Robot Intelligence	Hoang-Hon Trinh (Univ. of Ulsan), Dae-Nyeon Kim (Univ. of Ulsan), Kang-Hyun Jo (Univ. of Ulsan)
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3A05-2	Image Processing (1)	661	Human Tracking Using Fisheye Images	Yohei Kubo (Kagawa Univ.), Jun'ichi Yamaguchi (Kagawa Univ.)
3A05-3	Image Processing (1)	420	Optical Flow Estimator with Multichannel Integration	Teruo Yamaguchi (Kumamoto Univ.), Naofumi Harada (Hitachi Ltd.)
3A05-4	Image Processing (1)	572	Simultaneous Estimation of Optical Flow and Motion Parameters	Tomoya Kawakami (Kumamoto Univ.), Teruo Yamaguchi (Kumamoto Univ.), Hiroshi Harada (Kumamoto Univ.)
3A05-5	Image Processing (1)	502	Real Time Detection of Moving Human Based on Digital Image Processing	Yong Sam Kim (Chungbuk National Univ.), Jin Il Park (Chungbuk National Univ.), Dae Jong Lee (CBNU BK21 Chungbuk Information Technology Center), Myung Geun Chun (Chungbuk National Univ.)
3A05-6	Image Processing (1)	654	A Study of Omni-directional Image Based Environment Recognition for Mobile Robots	Makoto Sugiura (Hosei Univ.), Hidenobu Sakazaki (Hosei Univ.), Manabu Shimizu (Hosei Univ.), Kazuyuki Kobayashi (Hosei Univ.), Kajiro Watanabe (Hosei Univ.)
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3A07-1	Signal Processing (3)	102	N-best Vector Quantization for Isolated Word Speech Recognition	Masaya Nose (Okayama Univ.), Shuichi Maki (Okayama Univ.), Nobumoto Yamane (Okayama Univ.), Yoshitaka Morikawa (Okayama Univ.)
3A07-2	Signal Processing (3)	96	Robust Facial Element Extraction under Lighting Variation	Hidekazu Tsuboi (Shizuoka Univ.), Hitoshi Saji (Shizuoka Univ.)
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3A07-4	Signal Processing (3)	579	How to Hum Like a Bumble Bee ?	Rajkishore Prasad (UEC), Fumitoshi Matsuno (UEC)
3A07-5	Signal Processing (3)	270	Development of Intuitive Visual Navigation Interface for Electric Wheelchair	Masaru Onishi (Hosei Univ.), Satoshi Shibata (Hosei Univ.), Yoshitaka Goto (Hosei Univ.), Kazuyuki Kobayashi (Hosei Univ.), Kajiro Watanabe (Hosei Univ.)
3A07-6	Signal Processing (3)	500	Non-wetted Thermal Micro Flow Sensor	Minako Terao (Yokogawa Electric Corp.), Tomomi Akutsu (Yokogawa Electric Corp.), Yoshiaki Tanaka (Yokogawa Electric Corp.)
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3A08-3	OS: System Integration and Control Design for Autonomous Vehicles	614	Automatic Mapping for an Indoor Mobile Robot Assistant Using RFID and Laser Scanner	Hung-Hsing Lin (National Chung Hsing Univ. Hsiuping Institute of Technology), Ching-Chih Tsai (National Chung Hsing Univ.), Ssu-Min Hu (National Chung Hsing Univ.), Hsu-Yang Chang (Precision Machinery Research & Development Center)

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3A08-5	OS: System Integration and Control Design for Autonomous Robots	616	Stair-Climbing Control of Humanoid Robot using Force and Accelerometer Sensors	Tzuu-Hseng S. Li (NCKU), Yu-Te Su (NCKU), Cheng-Hsiang Kuo (NCKU), Chi-Yang Chen (NCKU), Chia-Ling Hsu (NCKU)
3A08-6	OS: System Integration and Control Design for Autonomous Robots	617	Design and Implementation of an Interactive Nurse Robot	Ming-Yuan Shieh (Southern Taiwan Univ.), Chen-Yang Chuang (Southern Taiwan Univ.), Cheng-Ming Lu (Southern Taiwan Univ.), Chin-Chien Chen (Southern Taiwan Univ.), Yu-Sheng Lai (Industrial Technology Research Institute)
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3A10-2	OS: Adaptive Locomotion Control under Unstructured Environments	228	Improvement of Learning Efficiency by Exploiting Multiarticular Muscles	Wataru Watanabe (Nagoya Univ.), Akio Ishiguro (Tohoku Univ.)
3A10-3	OS: Adaptive Locomotion Control under Unstructured Environments	296	CPG-based Adaptable Control of a Snake-like Robot	Kousuke Inoue (Ibaraki Univ.), Takaaki Sumi (BANDAI-NAMCO GAMES Inc.), Norikazu Sato (Ibaraki Univ.), Shugen Ma (Ritsumeikan Univ.)
3A10-4	OS: Adaptive Locomotion Control under Unstructured Environments	300	Oscillator-controlled Bipedal Walker with Pneumatic Actuators	Katsuyoshi Tsujita (Osaka Institute of Technology), Takashi Inoura (Osaka Institute of Technology), Tatsuya Masuda (Osaka Institute of Technology)
3A10-5	OS: Adaptive Locomotion Control under Unstructured Environments	588	Efficient Bipedal Walking Using Delayed Stepping Reflex	Yuji Otoda (Univ. of Electro Communications), Hiroshi Kimura (Univ. of Electro Communications), Kunikatsu Takase (Univ. of Electro Communications)
3A10-6	OS: Adaptive Locomotion Control under Unstructured Environments	604	Adaptive Locomotor Control in Bipedal Walking Monkey	Futoshi Mori (Yamaguchi Univ.), Katsumi Nakajima (Kinki Univ.)
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3A11-3	Mechanical Systems Control (3)	237	Running Control of Biped Robot	Itaru Miyagawa (Hosei Univ.), Kajiro Watanabe (Hosei Univ.)
3A11-4	Mechanical Systems Control (3)	369	An Intelligent Control for State-Dependent Nonlinear Actuator and Its Application to Pneumatic Servo System	Mikio Yamazaki (Univ. of Tsukuba), Seiji Yasunobu (Univ. of Tsukuba)
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3A11-6	Mechanical Systems Control (3)	566	Generalized Minimum Variance Control of Slider-Crank Mechanism	Masaru Saitoh (Tokyo Denki Univ.), Katsuhisa Furuta (Tokyo Denki Univ.)
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3A14-2	OS: Navigation, Guidance, and Control in Aerospace Systems	258	Automatic Following for UAVs Using Dynamic Inversion	Keisuke Enomoto (National Defense Academy of Japan), Takeshi Yamasaki (National Defense Academy of Japan), Hiroyuki Takano (National Defense Academy of Japan), Yoriaki Baba (National Defense Academy of Japan)
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3A14-5	OS: Navigation, Guidance, and Control in Aerospace Systems	127	Autonomous Flight Control System for Longitudinal Motion of a Helicopter	Atsushi Fujimori (Univ. of Yamanashi), Kyohei Miura (Shizuoka Univ.)
3A14-6	OS: Navigation, Guidance, and Control in Aerospace Systems	152	On-Orbit Experiment Plan of Robust Attitude Control of ETS-VIII	Takashi Ohtani (JAXA), Yoshiro Hamada (JAXA), Tomoyuki Nagashio (UEC), Takashi Kida (UEC), Shinji Mitani (JAXA), Isao Yamaguchi (JAXA), Tokio Kasai (JAXA), Hirotaka Igawa (JAXA)
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3A15-6	OS: Advanced Systems for Safety of Industry	79	Operator based Robust Control for Nonlinear Systems with Hysteresis	Changan Jiang (Okayama Univ.), Mingcong Deng (Okayama Univ.), Akira Inoue (Okayama Univ.)
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3A16-3	Human Interface(4)	543	Interactive Robot Supporting System for Object Acquisition	Tomoyuki Murakami (Univ. of electro-communications), Songmin Jia (Univ. of electro-communications), Kunikatsu Takase (Univ. of electro-communications)
3A16-4	Human Interface(4)	292	A New Measurement Methodology of Multi-Finger Tracking for Handheld Device Control Using Mixed Reality	Jung-Woo Hyun (Tokyo Institute of Technology), Itsuo Kumazawa (Tokyo Institute of Technology), Makoto Sato (Tokyo Institute of Technology)
3A16-5	Human Interface(4)	6	Simulation of Pneumatic Hand Crane Type Power Assist System	Tatsuya Doi (Gifu Univ.), Hironao Yamada (Gifu Univ.), Toshihisa Ikemoto (Aikoku Alpha Corp.), Hiroshi Naratani (Aikoku Alpha Corp.)
3A16-6	Human Interface(4)	338	Sensorless Interaction Force Control Based on Modal Space Design for Twin-Driven System	Chowarat Mitsantisuk (Nagaoka Univ. of Tech.), Seiichiro Katsura (Nagaoka Univ. of Tech.), Kiyoshi Ohishi (Nagaoka Univ. of Tech.)
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3A17-4	Robot Control(4)	12	Sensibility Control of Redundant Robots: Numerical Analysis and Experimental Results	Daniela Vassileva (Gifu Univ.), Shingo Tajima (Gifu Univ.), George Boiadjev (Bulgarian Acad. of Science), Haruhisa Kawasaki (Gifu Univ.), Tetsuya Mouri (Gifu Univ.)
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