SICE Annual Conference 2007

Technical Session Final Program

Tuesday, September 18, 2007

Session 1A01: Signal Processing (1)   Room 1, 10:30-12:30

1A01-1	Online Estimation of Complexity Using Variable Forgetting Factor	Koichi Sugisaki (Keio univ.), Hiromitsu Ohmori (Keio univ.)
1A01-2	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	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	An Efficient DC-Notch FIR Filter Design	Kyoung Jae Kim (Hanyang Univ.), Sang Won Nam (Hanyang Univ.)
1A01-5	A New Efficient Matrix Spectral Factorization Algorithm	Lasha Ephremidze (Tokai Univ.), Gigla Janashia (Razmadze Mathematical Institute), Edem Lagvilava (Razmadze Mathematical Institute)

Session 1A02: OS:Recent Advances in Mechanical Metrology (1)

Room 2, 10:30-12:30

1A02-1	Uncertainty Evaluation on the Fully-automated Sub-multiple Calibration in the Milligram Range	Masaaki Ueki (NMIJ), Kazunaga Ueda (NMIJ)
1A02-2	High Accurate Creep Compensation Method for Load Cell	Makoto Makabe (Yamato Scale company), Toru Kohashi (Yamato Scale company)
1A02-3	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	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)

Session 1A03: Identification and Estimation   Room 3, 10:30-12:30

1A03-1	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	Tracking Errors in the Steady State for a 3 Dimensional Tracking Using a Linear Filter	Yoshio Kosuge (Nagasaki Univ.)
1A03-3	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	Orientation Estimation by Error-State Extended Kalman Filter in Quaternion Vector Space	Mohammad Ahmadi (Shiraz Univ.), Alireza Khayatian (Shiraz Univ.), Paknush Karimaghaee (Shiraz Univ.)
1A03-5	Development of Recognition System for Billet Identification	Changhyun Park (Pohang Univ.), SangCheul Won (Pohang Univ.)
1A03-6	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.)

Session 1A05: Mechanical Systems Control (1)   Room 5, 10:30-12:30

1A05-1	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	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	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	Remote Bilateral Control of Master-slave Manipulators with an Environment Observer	Yuki Kakizoe (NAIST), Hisakazu Nakamura (NAIST), Hirokazu Nishitani (NAIST)
1A05-5	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)

Session 1A06: Nonlinear Control (1)   Room 6, 10:30-12:30

1A06-1	Global Asymptotic Stabilization of Nonlinear System with Multiple Singular Points Using Changeover of Control Lyapunov-Morse	Kazuki Takehara (Hokkaido Univ.), Takayuki Tsuzuki (Shimane Univ.), Yuh Yamashita (Hokkaido Univ.)
1A06-2	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	PID Control for Nonlinear Discretized Systems	Yoshifumi Okuyama (Humanitech Lab.)
1A06-4	Direct Design of Switching Control System by VRFT --Application to Vertical-type One-link Arm--	Shota Yabui (Mie Univ.), Kazuhiro Yubai (Mie Univ.), Junji Hirai (Mie Univ.)
1A06-5	A Novel Approach to the Nonlinear H-infinity Regulator Problem	Hidenori Matsuzaki (Shinshu Univ.), Masayoshi Eguchi (unemployed), Yasunari Shidama (Shinshu Univ.)
1A06-6	Kuramoto Models, Coupled Oscillations and Laser Networks	Wenxue Wang (Texas Tech Univ.), Bijoy Ghosh (Texas Tech Univ.)

Session 1A07: OS: Inverse Problems   Room 7, 10:30-12:30

1A07-1	Sub-surface Inspection by A0-mode Lamb-wave Measurement with Opt-Acoustical Spatio-Gradient Analysis	Kenbu Teramoto (Saga Univ.), Akito Uekihara (Saga Univ.)
1A07-2	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.), Saburou Saitoh Saitoh (Gunma Univ.), Tsutomu Matsuura (Gunma
1A07-3	The Method of High-Accuracy 3D Reconstruction for Oblique X-ray CT Images	Satoshi Yoshizawa (Keio Univ.), Toshiyuki Tanaka (Keio Univ.)
1A07-4	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	Acoustical Blind Source Separation based on Linear Advection Equation	Kenbu Teramoto (Saga Univ.), MD Tauhidul Islam Khan (Saga Univ.), Akito Uekihara (Saga Univ.)

Session 1A08: Intelligent Control (1)   Room 8, 10:30-12:30

1A08-1	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	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	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	Fuzzy MRAC Controller Design for the Vane-Type Air Motor	Yean-Ren Hwang (National Central Univ.), Yu-Da Shen (National Central Univ.)

Session 1A09: OS: Emerging Control Technologies   Room 9, 10:30-12:30

1A09-1	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	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
1A09-3	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	A Haptic Interface Using a Force-Feedback Joystick	Ae-Kyoung Ko (Pusan National Univ.), Joon-Young Choi (Pusan National Univ.)
1A09-5	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.)

Session 1A10: OS: Frontline of BIX (BioInformation eXchange) Research

Room 10, 10:30-12:30

1A10-1	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	X-Ray Fluorescent and Mid-Infrared Spectroscopic Measurements of Vigor Information of Tomato Plant	Naoko Hayashi (Mie Univ.), Atsushi Hashimoto (Mie Univ.), Ken-ichiro Suehara (Mie Univ.), Mikihito Kanou (Mie Univ.), Takaharu Kameoka (Mie Univ.), Takao Kumon (Kagome), Katsutoshi Hosoi (Kagome)
1A10-3	Image Monitoring of Paddy Field using BIX Image Broker System	Yoshitaka Motonaga (Niigata Univ.), Nobukazu Iguchi (Kinki Univ.), Norikumi Ohtake (Niigata Univ.), Takaharu Kameoka (Mie Univ.)
1A10-4	Architecture of the Advanced Field Severs	Masayuki Hirafuji (NARO), Hideo Yoichi (NARO), Haoming Hu (NARO), Tokihiro Fukatsu (NARO), Kei Tanaka (NARO)

Session 1A11: OS: Micrormechatronics for Biomedical Applications

1A11-1	Robust Control for Uncertain Systems Preceded by Hysteresis and Disturbances	Xinkai Chen (Shibaura Intitute of Tech.), Takeshi Hisayama (Shibaura Intitute of Tech.)
1A11-2	A Locomotive Microrobot for Biomedical Application	Qinxue Pan (Kagawa Univ.), Shuxiang Guo (Kagawa Univ.)
1A11-3	A Precision Parallel Micromechanism for Biomedical Applications	Jian Wang (Kagawa Univ.), Shuxiang Guo (Kagawa Univ.)
1A11-4	A Novel Tool Using SMA Actuator for Cell Puncturing	Changhai Ru (Harbin Engineering Univ.), Xihua Wang (Harbin Engineering Univ.), Shuxiang Guo (Kagawa Univ.)

Session 1A12: Intelligent Systems and Control — Room 12, 10:30-12:30

1A12-1	Acquisition of objects' properties in Intelligent Space	Kouhei Kawaji (Univ. of Tokyo), Mihoko Niitsuma (Univ. of Tokyo), Akio Kosaka (OLYMPUS), Hideki Hahimoto (Univ. of Tokyo)
1A12-2	Fast Localization of Multi-targets in the Intelligent Space	Qinhe Wang (Univ. of Tokyo), Hideki Hashimoto (Univ. of Tokyo)
1A12-3	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	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	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)

Session 1A14: OS: Observing Human — Room 14, 10:30-12:30

1A14-1	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	Proposal of a Method of Skin Region Detection by Two Near Wavelengths of Near Intrared	Taito Watanabe (Gifu Univ.), Kazuhiko Yamamoto (Gifu Univ.), Kunihito Kato (Gifu Univ.)
1A14-3	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	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)

Session 1A15: OS: Ubiquitous Healthcare — Room 15, 10:30-12:30

1A15-1	Telemonitoring System of TVOS for Elderly People Living Alone	Kazuki Nakajima (Univ. of Toyama), Akinori Kamiya (Univ. of Toyama), Hiroyuki Matsui (Univ. of Toyama), Daisuke Oikawa (Fujimoto Hayasuzu Hsp.), Kentaro Fujita (Fujimoto Hayasuzu Hsp.), Yuji Higashi (Fujimoto Hayasuzu Hsp.), Toshiyo Tamura (Chiba Univ.), Toshiro Fujimoto (Fujimoto Hayasuzu Hsp.), Kazuo Sasaki (Univ. of
1A15-2	The Home Health Care with the Ad-hoc Network System	Toshiyo Tamura (Chiba Univ.), Takahiro Kawada (Chiba Univ.), Masaki Sekine (Chiba Univ.)
1A15-3	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 Asanoi (Imizu City Hsp.), Ken-ichi Yamakoshi (Kanazawa Univ.
1A15-4	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.)

Session 1A16: Robot Control (1) — Room 16, 10:30-12:30

1A16-1	Falling Avoidance Control of Acrobat Robot by Reinforcement Learning	Takumi Kochiya (Tokyo Institute of Technology), Masaki Yamakita (Tokyo Institute of Technology)
1A16-2	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	Mobile Robot Navigation by Center Following using Monocular Vision	Naoya Tada (Tottori Univ.), Takeshi Saitoh (Tottori Univ.), Ryosuke Konishi (Tottori Univ.)
1A16-4	Voice Controlled Intelligent Wheelchair	Masato Nishimori (Tottori Univ.), Takeshi Saitoh (Tottori Univ.), Ryosuke Konishi (Tottori Univ.)
1A16-5	Oral Motion Controlled Intelligent Wheelchair	Takeshi Saitoh (Tottori Univ.), Noriyuki Takahashi (Tottori Univ.), Ryosuke Konishi (Tottori Univ.)

Session 1A17: Human Interface (1) — Room 17, 10:30-12:30

1A17-1	Effect of Horizontal Position on Detecting Persons Looking towards the Robot	Rukhsana Tarannum Tajin (Saitama Univ.), Yoshinori Kuno (Saitama Univ.)
1A17-2	Target User Localization for a Service Robot Using Wireless LAN	Timoteo Idica (Univ. of Tsukuba), Akihisa Ohya (Univ. of Tsukuba)

1A17-3	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.)
1A17-4	Highly Reliable Liveness Detection Method for Iris Recognition	Masashi Kanematsu (Toyama Prefectural Univ.), Hironobu Takano (Toyama Prefectural Univ.), Kiyomi Nakamura (Toyama Prefectural Univ.)
1A17-5	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	Laser Pointer as a Mouse	Toshiharu Wada (Shibaura Institute of Technology), Masanobu Takahashi (Shibaura Institute of Technology), Keiichiro Kagawa (NAIST), Jun Ohta (NAIST)

Session 1B02: OS:Recent Advances in Mechanical Metrology (2)
Room 2, 13:30-15:10

1B02-1	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	Evaluation of Positioning Performance of a Fine-coarse Mechanism	Yoshitaka Morimoto (Utsunomiya Univ.), Yoshio Ichida (Utsunomiya Univ.), Ryunosuke Sato (Utsunomiya Univ.)
1B02-3	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	Transfer Standard for High Pressure up to 1 GPa using Pressure Transducers	Tokihiko Kobata (AIST), Kazunori Ide (AIST)

Session 1B03: OS: Rangefinders
Room 3, 13:30-15:10

1B03-1	Development of Laser Rangefinder-based SLAM Algorithm for Mobile Robot Navigation	Yusuke Misono (Hosei Univ.), Yoshitaka Goto (Hosei Univ.), Yuki Tarutoko (Hosei Univ.), Kazuyuki Kobayashi (Hosei Univ.), Kajiro Watanabe (Hosei Univ.)
1B03-2	Development of an Open-air Type Laser Absorption Atmospheric Gas Monitor with Ability of Reducing the Fluctuation of Incident Optical Power	Masaki Sutou (Fukuyama Univ.), Naoki Kagawa (Fukuyama Univ.)
1B03-3	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	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	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.)

Session 1B05: Robust Control (1)
Room 5, 13:30-15:10

1B05-1	Design of Reduced-order Weight for H_{∞} 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	Beyond The Small-Gain Paradigm: How to Make Use of The Phase Information of Uncertainty	Kang-Zhi Liu (Chiba Univ.)
1B05-3	Modelling and Navigation Control of Autonomous Vehicles	Katsumi Moriwaki (Univ. Shiga Pref.), Katsuyuki Tanaka (Univ. Shiga Pref.)
1B05-4	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 Nonlinear Control for Flexible Joint Robot Manipulators	Jae Young Lee (Hanyang Univ.), Je Sung Yeon (Hanyang Univ.), Jong Hyeon Park (Hanyang Univ.)

Session 1B07: Adaptive Control (1)
Room 7, 13:30-15:10

1B07-1	Adaptive PID Control for Perfect Tracking Problem of MIMO Systems	Kenichi Tamura (Keio Univ.), Hiromitsu Ohmori (Keio Univ.)
1B07-2	Design of Adaptive Control Systems for Unstable Plants in the Presence of Input Saturation	Natsuki Takagi (Kyushu Institute of Technology), Takeshi Nishida (Kyushu Institute of Technology), Toshihiro Kobayashi (Kyushu Institute of
1B07-3	A Simple Redesign of Adaptive Control for Nonlinear Parametric Models with State Variable Filters	Yoshihiko Miyasato (Inst. of Statistical Mathematics)
1B07-4	Self Tuning Control with Generalized Minimum Variance Control in Continuous Time Domain	Ryouta Hoshino (Tokyo Metropolitan Univ.), Yasuchika Mori (Tokyo Metropolitan Univ.)
1B07-5	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.)

Session 1B08: OS: Medical Care and Welfare Engineering as a Man-Machine System (1)
Room 8, 13:30-15:10

1B08-1	Image Recognition of Reflective Object for Robotic Manipulator Suspended from Ceiling	Yoshihiko Takahashi (Kanagawa Institute of Technology), Kouji Kato (Kanagawa Institute of Technology), Yuuki Takayama (Kanagawa Institute of Technology)
1B08-2	Experiments on Human Facial Expressions for Improvement of Simplified Robot Face	Yoshihiko Takahashi (Kanagawa Institute of Technology), Masanori Hatakeyama (Kanagawa Institute of Technology), Mitsuru Kanno (Kanagawa Institute of Technology)

1B08-3	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	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
1B08-5	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)

Session 1B09: OS:AUN/Seed-Net Benchmark Problem on Control Engineering: Robust Control for Twin-Inverted Pendula
Room 9, 13:30-15:10

1B09-1	Control Engineering Education through AUN/SEED-Net	Shinji Hara (Univ. of Tokyo), Hiroshi Iwadate (JICA), Masaki Yamakita (Tokyo Inst. of Tech.)
1B09-2	Benchmark Problem on Control Engineering	Masaki Yamakita (Tokyo Inst. of Tech.), Manop Wongsaisuwan (Chulalongkorn Univ.), Shinji Hara (Univ. of Tokyo)
1B09-3	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	Robust Controller Design for a Rotary Double Inverted Pendulum using Linear Matrix Inequalities	Ha Hoang (Chulalongkorn Univ.), Manop Wongsaisuwan (Chulalongkorn Univ.)

Session 1B10: OS: Dependable System Design in Discrete Event Systems
Room 10, 13:30-15:10

1B10-1	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	Application of DES Theory to Verification of Software Components	Kunihiko Hiraishi (JAIST), Petr Kucera (JAIST)
1B10-3	Inference-Diagnosability: Nonconvergence and Other Complexity Results	Shigemasa Takai (Kyoto Inst. of Tech.), Ratnesh Kumar (Iowa State Univ.)
1B10-4	Local/Global Fault Diagnosis of Event-Driven Systems based on Bayesian Network and Timed Markov Mode	Shinkichi Inagaki (Nagoya Univ.), Tatsuya Suzuki (Nagoya Univ.), Mitsuo Saito (Nagoya Univ.), Takeshi Aoki (Nagoya Municipal Industrial Research
1B10-5	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.)

Session 1B11: Systems and Education
Room 11, 13:30-15:10

1B11-1	Development of Management System in Mechatronics Education	Yuya Eguchi (Shibaura Institute of Technology), Yoshinobu Ando (Shibaura Institute of Technology), Makoto Mizukawa (Shibaura Institute of Technology)
1B11-2	Extracting Feeling Information from Voice	Naoya Ikeda (Kitami Institute of Technology SVBL), Yoshitaka Fujiwara (Kitami Institute of Technology), Hideki Yoshida (Kitami Institute of
1B11-3	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	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	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.)

Session 1B14: OS: Theory and Application of Histogram Frequency Image and Co-occurence Frequency Image
Room14,13:30-15:10

1B14-1	Current State and the Future of Image Features	Hiroyasu Koshimizu (Chukyo Univ.), Shunichiro Oe (Univ. of Tokushima)
1B14-2	Introduction of Frequency Image and applications	Toshiyuki Kashiwagi (Tokushima Prefectural Industrial Technology Center), Shunichiro Oe (Univ. of Tokushima)
1B14-3	On CFI and CFI-based Filters	Takayuki Fujiwara (Chukyo Univ.), Hiroyasu Koshimizu (Chukyo Univ.)
1B14-4	Visual Defects Classification System Using Co-occurrence Histogram Image	Teppei Iga (Kagawa Univ.), Takateru Tanaka (Kagawa Univ.), Jun-ichiro Hayashi (Kagawa Univ.), Seiji Hata (Kagawa Univ.)

Session 1B15: OS: Interaction and Intelligence
Room 15, 13:30-1510

1B15-1	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	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.)
1B15-3	Robot Behaviors Connected with Utterances and Environments via Potential Fields	Yuji Kitazawa (Keio Univ.), Jun Mukai (Keio Univ.), Michita Imai (Keio Univ.)
1B15-4	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	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.)

Session 1B16: Mechatronics Systems — Room 16, 13:30-15:10

1B16-1	Control for Robust Standing of a Bipedal Robot by Sole Pressure	Junya Aoki (Hosei Univ.), Kajiro Watanabe (Hosei Univ.)
1B16-2	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	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
1B16-4	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	Development of Dynamics Modeling in the Vehicle Simulator for Road Safety Analysis	Kyung-Ho Bang (Myongji College)

Session 1B17: Human Interface (2) — Room 17, 13:30-15:10

1B17-1	Investigation of Playing with Entertainment Robotic Pet of Pre-School Aged Child	Satoshi Yamamoto (Teikyo Univ.), Ryuhei Kimura (Teikyo Univ.)
1B17-2	Estimation of Musical Pitch by Using Comb Filters for the Identification of Musical Instruments	Atsushi Todo (Kagawa Univ.), Hideyuki Sawada (Kagawa Univ.)
1B17-3	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	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	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)

Session 1C01: Signal Processing in Medical and Biological Engineering — Room 1, 15:30-17:50

1C01-1	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	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	Vein Emphasis Filter for Biometric Authentication.	Shinichiro Watanabe (Keio Univ.), Toshiyuki Tanaka (Keio Univ.), Eizaburo Iwata (Universal Robot Inc)
1C01-4	Telemedicine System of Pathology Image using the Internet.	Ayako Suzuki (Keio Univ.), Toshiyuki Tanaka (Keio Univ.)
1C01-5	Tumor Detection Method of Small Animals on X-ray Images	Yuji Karita (Keio Univ.), Toshiyuki Tanaka (Keio Univ.), Isao Kabaya (R-Tec Corp.), Mikiya Kano (R-Tec Corp.), Isamu Iwayoshi (Japan Small Animal Medical Research Center)
1C01-6	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.)

Session 1C02: Opto-Electronic Engineering — Room 2, 15:30-17:50

1C02-1	Profiler Design with Multi-Sensor Data Fusion Methods	Jium-Ming Lin (Chung-Hua Univ.), Jiea-Chie Lin (Chung-Hua Univ.)
1C02-2	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	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)
1C02-4	Two-Wavelength Single-Shot Interferometry	Katsuichi Kitagawa (Toray Engineering Co.), Masashi Sugiyama (Tokyo Institute of Technology), Takuya Matsuzaka (Tokyo Institute of Technology), Hidemitsu Ogawa (Toray Engineering Co.), Kazuyoshi Suzuki (Toray Engineering Co.)
1C02-5	Voice Separation Ability and Brain Activation Measurement Base on NIRS Analysis	Di Miao (Kochi Univ. of Technology), Shuoyu Wang (Kochi Univ. of Technology)

Session 1C03: OS: Visual 3-D Measurement — Room 3, 15:30-17:50

1C03-1	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	3D Measurement of Flexible Objects by Robust Motion Stereo	Yukiyasu Domae (Hokkaido Univ.), Hidenori Takauji (Hokkaido Univ.), Shun'ichi Kaneko (Hokkaido Univ.), Takayuki Tanaka (Hokkaido Univ.), Haruhisa Okuda (Mitsubishi Electric Corp.)
1C03-3	A Implementation of Humanoid Vision –Analysis of Eye Movement and Implementation to Robot-	Masayuki Shamoto (Gifu Univ.), Kunihito Kato (Gifu Univ.), Kazuhiko Yamamoto (Gifu Univ.)

1C03-4	Model Reconstruction based on Radial Reach Filter	Satoru Takahashi (Kagawa Univ.), Shunichi Kaneko (Hokkaido Univ.)
1C03-5	Robust Focusing by Orientation Code Matching	Yuan Li (Hokkaido Univ.), Isao Ohmura (Hokkaido Industrial Research Institute), Hidenori Takauji (Hokkaido Univ.), Shunichi Kaneko (Hokkaido Univ.), Takayuki Tanaka (Hokkaido Univ.)
1C03-6	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.)

Session 1C06: Medical and Welfare Systems — Room 6, 15:30-17:50

1C06-1	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	Measurement of Heart-beat of Train Operators	Yoshihiro Kawanishi (Hosei Univ.), Kouta Aizawa (Hosei Univ.), Kajiro Watanabe (Hosei Univ.)
1C06-3	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	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	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	3-D Reconstruction Using Color Stripe and Its Application to Grading of Facial Palsy	Junichi Sakaeda (Keio Univ.), Toshiyuki Tanaka (Keio Univ.)

Session 1C07: Process Control — Room 7, 15:30-17:50

1C07-1	Design Method of Minimum-Phase State Decoupling Control with Feedforward Compensation	Takao Tomaru (Tokyo Metropolitan Univ.), Yasuchika Mori (Tokyo Metropolitan Univ.)
1C07-2	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	Discrete Time Models of a Continuous Power System Stabilizer	Gaber Shabib Salman Ahmed (Univ. of Tsukuba), Noriyku Hori (Univ. of Tsukuba)
1C07-4	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	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	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)

Session 1C08: OS: Medical Care and Welfare Engineering as a Man-Machine System (2) — Room 8, 15:30-17:50

1C08-1	Development of Breast Cancer Palpation Simulator Using Pneumatic Parallel Manipulator	Masahiro Takaiwa (Okayama Univ.), Toshiro Noritsugu (Okayama Univ.)
1C08-2	Eye Interface for Physically Impaired People by Genetic Eye Tracking	Toshiya Nishimura (Yamaguchi Univ.), Motoki Nakashige (Yamaguchi Univ.), Takuya Akashi (Yamaguchi Univ.), Yuji Wakasa (Yamaguchi Univ.),
1C08-3	A Study of Powered Wheelchair Operation	Masayuki Booka (Hiroshima Internatinal Univ.), Osamu Sueda (Univ. of Tokushima), Shoichiro Fujisawa (Univ. of Tokushima)
1C08-4	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	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

Session 1C09: OS:Recent Advances in Distributed Parameter Systems — Room 9, 15:30-17:50

1C09-1	Identification Problems for Semilinear Parabolic Evolution Equations	Shin-ichi Nakagiri (Kobe Univ.)
1C09-2	Stabilization and a Class of Functionals for Linear Parabolic Systems	Takao Nambu (Kobe Univ.)
1C09-3	On Observability of a Parallel-Flow Three-Fluid Heat Exchange Process	Hideki Sano (Kagoshima Univ.)
1C09-4	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	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	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	A Finite-dimensional Uncertainty Modeling for Parabolic Distributed Parameter Systems	Jun Imai (Okayama Univ.)

Session 1C10: OS: Unconventional Computation and Communication

Room 10, 15:30-17:50

1C10-1	Structural Organization in Network Artificial Chemistry by Node Programs and Token Flow	Hideaki Suzuki (NICT)
1C10-2	Multistate Part for Mesoscale Self-Assembly	Daiko Tsutsumi (Tokyo Institute of Technology), Satoshi Murata (Tokyo Institute of Technology)
1C10-3	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	Morphological Dynamics in a Proto-cell Model	Keisuke Suzuki (Univ. of Tokyo), Takashi Ikegami (Univ. of Tokyo)
1C10-5	On Information-Theoretical Formalization of Intracellular Communications Based on Linear Network Coding	Jian-Qin Liu (NICT)

Session 1C11: OS: System Analysis and Intelligent Design of Multiple Interactive Systems

Room 11, 15:30-17:50

1C11-1	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	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	Development of a Patrol Robot for Home Security with Network Assisted Interactions	Jong-Hann Jean (St. John's Univ.)
1C11-4	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	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	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.)

Session 1C12: Systems Theory and Engineering

Room 12, 15:30-17:50

1C12-1	Development of an Energy-efficient LP Gas Pressure Regulator	Keigo Misawa (Hosei Univ.), Yusuke Miho (Hosei Univ.), Kajiro Watanabe (Hosei Univ.)
1C12-2	Cross-Layer Design for Throughput Improvement in Wireless Communications	Shintaro Mori (Kagawa Univ.), Koji Ishii (Kagawa Univ.), Shigeaki Ogose (Kagawa Univ.)
1C12-3	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	Proposal of Web System "NAP-Web" to Promise Next Access	Tomohiko Kaji (Kagawa Univ.), Keizo Saisho (Kagawa Univ.)
1C12-5	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.), Setsyua Kurahashi (Univ. of Tsukuba)

Session 1C13: Neural Networks and their Application

Room 13, 15:30-17:50

1C13-1	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	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	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	Characteristic of Adaptive Type Neural Network Direct Controller with Separate Learning Rule	Takayuki Yamada (Ibaraki Univ.)
1C13-5	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	Implicit estimation of other's intention without direct observation of actions in a collaborative task: Situation-Sensitive Reinforcement	Tadahiro Taniguchi (Kyoto Univ.), Kenji Ogawa (Kyoto Univ.), Tetsuo Sawaragi (Kyoto Univ.)

Session 1C14: OS: Biomimetic Approach in Robotics and Machines

Room 14, 15:30-17:50

1C14-1	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	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	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	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	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	Hardware Design of Self-Organization for Clustering	Atsushi Ishihara (Kansai Univ.), Yutaka Maeda (Kansai Univ.)

Session 1C16: Robot Control (2)   Room 16, 15:30-17:50

1C16-1	Initial State Observer Design for Self-localization of Mobile Robots	Muneaki Higuchi (NAIST), Hisakazu Nakamura (NAIST), Hirokazu Nishitani (NAIST)
1C16-2	A Controller Design on Person Following Omni-directional Vehicle Robots	Prasarn Kiddee (Polytechnic Univ.), Akira Shimada (Polytechnic Univ.)
1C16-3	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 of
1C16-4	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	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

Session 1C17: Robot Arm and Manipulator   Room 17, 15:30-17:50

1C17-1	A Method of Real-time Coordination of Redundant Muscles for Multi-DOF Robot Joints	Masakazu Suzuki (Tokai Univ.), Takashi Mayahara (Tokai Univ.)
1C17-2	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	Motion Simulation of Robot Arm Using Reinforcement Learning	Oshiro Takahito (Hosei Univ.), Watanabe Kajiro (Hosei Univ.)
1C17-4	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)
1C17-5	A Systematic Approach to Stiffness Analysis of Parallel Mechanisms and its Comparison with FEM	Kiyoshi Nagai (Ritsumeikan Univ.), Zhengyong Liu (Ritsumeikan Univ.)

Wednesday, September 19, 2007

Session 2A01: Neural Networks   Room 1, 10:30-12:30

2A01-1	Multi-objective Multiclass Support Vector Machine for Pattern Recognition	Keiji Tatsumi (Osaka Univ.), Kenji Hayashida (Osaka Univ.), Hiroki Higash (Osaka Univ.), Tetsuzo Tanino (Osaka Univ.)
2A01-2	Impact Perforation Image Processing using a Self-Organizing Map	Kenji Okubo (Takushoku Univ.), Takehiko Ogawa (Takushoku Univ.), Hajime Kanada (Takushoku Univ.)
2A01-3	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	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	Medical Image Recognition of Abdominal X-ray CT Images by RBF GMDH-type Neural Network	Tadashi Kondo (Univ. of Tokushima), Junji Ueno (Univ. of Tokushima)
2A01-6	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)

Session 2A02: OS: Human Factors in Vehicle Operation

Room 2, 10:30-12:30

2A02-1	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
2A02-2	Effect of Safe-driving Instructions on Driver Behavior at Non-signalized Intersection	Hiroaki Kosaka (NAIST), Nobuhisa Higashikawa (NAIST), Hirokazu Nishitani (NAIST)
2A02-3	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	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	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

Session 2A03: OS: Evolutionary and Distributed Systems Towards Real-world Applications (1)
Room 3, 10:30-12:30

2A03-1	Waterbus Route Optimization by Pittsburgh-style Learning Classifier System	Keiji Sato (Univ. of Electro-Communications), Keiki Takadama (Univ. of Electro-Communications)
2A03-2	Tierra-based Space System for Robustness of Bit Inversion and Program Evolution	Ken Nonami (Univ. of Electro-Communications), Keiki Takadama (Univ. of Electro-Communications)
2A03-3	A Robustness Distributed System with Sensing and Fault Detection for Large-scale Sensor Networks	Kiyohiko Hattori (National Institute of Information and Communication. Technol), Keiki Takadama (Univ. of Electro-Communications), Satoshi Murata (Tokyo Institute of Technology), Hiroshi Furuya (Tokyo Institute of
2A03-4	Using Game Theory for Power and Rate Control in Wireless Ad Hoc Networks	Azman O Lim (NICT), Youiti Kado (NICT)

Session 2A04: OS:International Share of Information on Measurement Science and Sensing Technologies
Room 4, 10:30-12:30

2A04-1	Progress and Promotion of the International Interchange of Information on Sensing Technologies	Hidetaka Imai (NMIJ, AIST), Hiro Yamasaki (Univ. of Tokyo)
2A04-2	Viewpoints of Education and Science in Measurement and Instrumentation	Shigeru Takayama (Ritsumeikan Univ.BKC)
2A04-3	Dynamic Problems in Measurement of Mass-related Quantities	Yamazaki Takanori (Oyama National College of Technology), Toshiro Ono (Okayama Univ. of Science)
2A04-4	Measurement and Analysis of Motor Adaptation to Dynamic Environments	Koji Ito (Tokyo Institute of Tech.)
2A04-5	Activities of New TC22 Vibration Measurement	Takashi Usuda (NMIJ/AIST), Hidetaka Imai (AIST)
2A04-6	IMEKO and SICE - Collaboration and Competition	Kozo Iizuka (J. A. Metrology Prom.)

Session 2A05: Mechanical Systems Control (2)
Room 5, 10:30-12:30

2A05-1	Time Series Analysis Based Overload Detection Algorithm for Excavator	Chang Ho Yu (Pusan National Univ.), Jae Weon Choi (Pusan National Univ.)
2A05-2	Effect of Tire Damping on the Ride Performance Potential of Active Suspension Systems	Semiha Turkay (Anadolu Univ.), Huseyin Akcay (Anadolu Univ.)
2A05-3	FDI Filter Design Using Sliding Mode Observer and Its Application to an Active Control System	Akira Nakazawa (Shinshu Univ.), Yuichi Chida (Shinshu Univ.)
2A05-4	Fractional Derivative Control Designs by Inhomogeneous Sampling for Systems with Nonlinear Elements	Fujio Ikeda (Kochi National College of Technology), Shigehiro Toyama (Nagaoka National College of Technology)
2A05-5	Discrete-Valued Input Control of Crane Systems Using Optimal Dynamic Quantizer	Yuki Minami (Kyoto Univ.), Shun-ichi Azuma (Kyoto Univ.), Toshiharu Sugie (Kyoto Univ.)
2A05-6	Swing up Control Experiment aimed at Energy Interaction between the Acrobot and Compliance	Masao Kanazawa (TITECH Univ.), Ryuichi Anami (TITECH Univ.), Shigeki Nakaura (TITECH Univ.), Mitsuji Sampei (TITECH Univ.)

Session 2A06: Nonlinear Control (2)
Room 6, 10:30-12:30

2A06-1	Homogeneous Eigenvalue Analysis for Complex Homogeneous Systems of Degree (l,l)	Nami Nakamura (NAIST), Hisakazu Nakamura (NAIST), Yuh Yamashita (Hokkaido Univ.), Hirokazu Nishitani (NAIST)
2A06-2	Formation Stability of Multi-Agent Systems with State-Dependent Communication Loss	Gajamohan Mohanarajah (Tokyo Inst. of Tech.), Tomohisa Hayakawa (Tokyo Inst. of Tech.)
2A06-3	Design of a Model Following Stabilizer to an Artificial Gravity Control Model	Masaki Izutsu (Tokyo Denki Univ.), Katsuhisa Furuta (Tokyo Denki Univ.)
2A06-4	Synchronization Control for Circadian Rhythm of Drosophila with Flatness-based Adaptive Control	Tetsuya Kusumi (Keio Univ.), Hiromitsu Ohmori (Keio Univ.)
2A06-5	Semi-Global Output Regulation of Nonminimum-phase Nonlinear Systems via Error Feedback	Yoshinori Hirose (Hokkaido Univ.), Yuh Yamashita (Hokkaido Univ.)
2A06-6	Model Following Control with A Sliding Mode Adjustment for A Positioning System	Miki Shichijo (kyutech), Ryuichi Oguro (kyutech)

Session 2A07: Adaptive Control (2)
Room 7, 10:30-12:30

2A07-1	Adaptive Semiactive Suspension System by Linearly Parameterized Controller	Tomoaki Mori (Keio Univ.), Itthisek Nilkhamhang (Keio Univ.), Akira Sano (Keio Univ.)
2A07-2	Generalized Predictive Controls over State Space	Jung Hun Park (Seoul National Univ.), Soohee Han (Seoul National Univ.), Wook Hyun Kwon (Seoul National Univ.)
2A07-3	Simple Adaptive Control for SISO Nonlinear Systems Using Multiple Neural Networks	Muhammad Yasser (Chiba Univ.), Agus Trisanto (Chiba Univ.), Ayman Haggag (Chiba Univ.), Takashi Yahagi (Chiba Univ.), Hiroo Sekiya (Chiba Univ.), Jianming Lu (Chiba Univ.)
2A07-4	A Robust Adaptive Control for Robotic Manipulator with Input Torque Uncertainty	Kazuya Sato (Saga Univ.), Kazuhiro Tsuruta (Kyushu Sangyo Univ.), Hiroshi Mukai (Saga Univ.)
2A07-5	Disturbance Observer-Based Internal Model Control with An Adaptive Mechanism For Linear Actuators	Masayuki Kigure (Gunma Univ.), Seiji Hashimoto (Gunma Univ.), Takeo Ishikawa (Gunma Univ.)

2A07-6	Adaptive Longitudinal Velocity and Lane Keeping Control of Four-Wheel-Steering Vehicles	Yuma Yoshida (Kyushu Institute of Technology), Qiang Wang (Kyushu Institute of Technology), Masahiro Oya (Kyushu Institute of Technology), Katsuhiro Okumura (Fukuoka Industrial Technology Center)

Session 2A08: Optimization and Reinforcement Learning
Room 8, 10:30-12:30

2A08-1	A New Cooperative Approach to Discrete Particle Swarm Optimization	Yiheng Xu (Waseda Univ.), Jinglu Hu (Waseda Univ.), Kotaro Hirasawa (Waseda Univ.), Xiaohong Pang (Shanghai Jiao Tong Univ.)
2A08-2	Global Optimization with Chaotic Particles Inspired by Swarm Intelligence	Kazuaki Masuda (Kanagawa Univ.), Kenzo Kurihara (Kanagawa Univ.)
2A08-3	The Optimal Design of the Vehicle Routing Problem with Time Windows by Ant Colony System	Hiroaki Ono (Tokyo Metropolitan Univ.), Yasuchika Mori (Tokyo Metropolitan Univ.)
2A08-4	Elevator Group Control System using Genetic Network Programming with ACO Considering Transitions	Lu Yu (Waseda Univ.), Jin Zhou (Waseda Univ.), Shingo Mabu (Waseda Univ.), Kotaro Hirasawa (Waseda Univ.), Jinglu Hu (Waseda Univ.), Sandor Markon2 (Fujitec Co. Ltd.)
2A08-5	Model-based Reinforcement Learning with Model Error and Its Application	Yoshiyuki Tajima (Univ. of Tsukuba), Takehisa Onisawa (Univ. of Tsukuba)
2A08-6	Optimizing Reserve Size in Genetic Algorithms with Reserve Selection Using Reinforcement Learning	Yang Chen (Waseda Univ.), Jinglu Hu (Waseda Univ.), Kotaro Hirasawa (Waseda Univ.), Songnian Yu (Shanghai Univ.)

Session 2A09: OS:Methods of Control Engineering in Systems Biology
Room 9, 10:30-12:30

2A09-1	Evaluation of Circadian Clock Model based on Orbital Stability	Takamichi Hinohara (Waseda Univ.), Kenko Uchida (Waseda Univ.)
2A09-2	Modeling of IL-1 Induced NF-kappaB Signaling and Analysis of Additional UVB Influence	Johannes Witt (Univ. of Stuttgart), Sebastian Husser (Univ. of Stuttgart), Dagmar Kulms (Univ. of Stuttgart), Sandra Barisic (Univ. of Stuttgart), Oliver Sawodny (Univ. of Stuttgart), Thomas Sauter (Univ. of Stuttgart)
2A09-3	Methods for Analysis of Evolutive Adaptation of E. coli	Ronny Feuer (Univ. of Stuttgart), Michael Ederer (MaxPlanckInstitute fuer Dynamik komplexer technischer System), Georg Sprenger (Univ. of Stuttgart), Thomas Sauter (Univ. of Stuttgart), Oliver Sawodny (Univ. of
2A09-4	Recovery Patterns in the Physiological Responses of the Autonom Nervous System Induced by Mental Workload	Chie Soga (Kyushu Institute of Technology), Shinji Miyake (Univ. of Occupational and Environmental Health), Chikamune Wada (Kyushu Institute of Technology)
2A09-5	Understanding of Robustness for a Basic System of Cell Cycle in Yeast	Takehito Azuma (Utsunomiya Univ.)

Session 2A10: OS: Recent Progress in Temperature Measurement (1)
Room 10, 10:30-12:30

2A10-1	Experimental Investigation of Cr3C2-C Peritectic Fixed Point	Yoshiro Yamada (National Metrology Institute of Japan), Yunfen Wang (National Metrology Institute of Japan), Naohiko Sasajima (National Metrology Institute of Japan)
2A10-2	Investigation of WC-C Peritectic High-temperature Fixed Point	Naohiko Sasajima (NMIJ, AIST), Yoshiro Yamada (NMIJ, AIST)
2A10-3	A Calculation of E.M.F. Drift from the Rh Contents for Platinum Based Thermocouples	Tokio Hamada (Tanaka Kikinzoku Kogyo K.K.)
2A10-4	Study on the Realization of Indium Point	Januarius Widiatmo (NMIJ, AIST), Kazuaki Yamazawa (NMIJ, AIST), Koichi Sato (NMIJ, AIST), Jun Tamba (NMIJ, AIST), Masaru Arai (NMIJ, AIST)
2A10-5	Evaluation of a Horizontal Furnace for Precise Comparison between a Radiation Thermometer and a Platinum Resistance Thermometer	Kazuaki Yamazawa (NMIJ, AIST), Kiyoshi Anso (NMIJ, AIST), Masaru Arai (NMIJ, AIST)

Session 2A11: Signal Processing (2)
Room 11, 10:30-12:30

2A11-1	An algorithmic study on blind source separation for preprocessing of an Echo Canceler	Sakai Yoshihiro (Tsuyama National College of Technology), Takahashi Kota (Univ. of Electtro-Commnunications), Mitsuhashi Wataru (Univ. of Electtro-Commnunications)
2A11-2	Analysis and Improvement of Post-Processing for BSS Aiming to Suppress Recognizable Crosstalk	Kazuya Nakagawa (Univ. of Electro-Communications), Kota Takahashi (Univ. of Electro-Communications)
2A11-3	Wavelet Audio Watermark Robust Against MPEG Compression	Patcharin Artameeyanant (Vongchavalitkul Univ.)
2A11-4	A Study of Narrow-Band and Compact Size Microstrip Bandpass Filters for Wireless Communications	Duangporn Puttadilok (Sirindhorn International Institute of Technology), Duangrat Eungdamrong (Sirindhorn International Institute of Technology), Watchanun Tanacharoenwat (Sirindhorn International Institute of
2A11-5	Optimal Wavelet Expansion via Sampled-Data H^∞ Control Theory	Masaki Ogura (Kyoto Univ.), Masaaki Nagahara (Kyoto Univ.), Yutaka Yamamoto (Kyoto Univ.)
2A11-6	Sound Target Tracking in 3D using Particle Filter with 4 Microphones	Masato Kawanishi (Kyushu Tech.), Ryousuke Maruta (Taiko Refractories Co.), Norikazu Ikoma (Kyushu Tech.), Hideaki Kawano (Kyushu Tech.), Hiroshi Maeda (Kyushu Tech.)

Session 2A12: Transportation Systems
Room 12, 10:30-12:30

2A12-1	Dynamic Time Step Synchronization method for Road Traffic simulation - Application to RoboCup Rescue simulation -	Atsuo Ozaki (Mitsubishi Electric Corp.), Kazutaka Matsushita (Mitsubishi Electric Information Systems Corp.), Masashi Shiraishi (Mitsubishi Electric Corp.), Shusuke Watanabe (Mitsubishi Electric Corp.), Masakazu Furuichi (Mitsubishi Electric Corp.), Hiroyuki Sato (Mitsubishi Electric Corp.)
2A12-2	An Analysis of Mean Link Travel Time in Urban Road Networks and Its Applications	Hikaru Shimizu (Fukuyama Univ.), Masa-aki Kobayashi (Fukuyama Univ.), Haruko Fujii (Yuge National College of Maritime Tech.), Shigekazu Katagiri (Fukuyama Univ.)
2A12-3	Travel Time Measurement by Vehicle Sequence Matching Method	Satoshi Takahashi (Nihon Univ.), Takashi Izumi (Nihon Univ.)
2A12-4	Forward Vehicle Tracking based on Shadow Detection	Takashi Izumi (Nihon Univ.), Masayuki Kikawa (Nihon Univ.), Shunsuke Hase (Nihon Univ.), Michitaka Nishimoto (Nihon Univ.)
2A12-5	Improvement of Height Measurement	Takashi Izumi (Nihon Univ.), Yuji Okada (Nihon Univ.), Takeshi Hoshino (Nihon Univ.)
2A12-6	Robust Active Suspension Controller Achieving Good Ride Comfort	Hiroki Okuda (Kyushu Institute of Technology), Yasutaka Tsuchida (Kyushu Institute of Technology), Masahiro Oya (Kyushu Institute of Technology), Qiang Wang (Kyushu Institute of Technology), Katsuhiro Okamura (Fukuoka Industrial Technology Center

Session 2A14: OS: Advanced Image-Based Measurement

Room 14, 10:30-12:30

2A14-1	Estimation of the 3D Structure of Road Scenes from Monocular Images and Range Data	Koichiro Yamaguchi (Toyota Central Labs.), Takeo Kato (Toyota Central Labs.), Yoshiki Ninomiya (Toyota Central Labs.)
2A14-2	Multi-baseline Stereo by Maximizing Total Number of Interest Points	Tomokazu Sato (NAIST), Naokazu Yokoya (NAIST)
2A14-3	Visual Defect Inspection of Rotating Screw Heads	Hiroyuki Ukida (Tokushima Univ.)
2A14-4	Detection of Professional Techniques in Cooking by Image Processing	Yoko Akagi (Shibaura Institute of Technology), Yoshimitsu Aoki (Shibaura Institute of Technology), Eri Hoshikawa (Ajinomoto), Toshiyuki Sakashita (Ajinomoto)
2A14-5	Assistance System for Designing Mirrored Surface Using Projector	Daisuke Nakamura (Osaka Univ.), Shinsaku Hiura (Osaka Univ.), Kosuke Sato (Osaka Univ.)

Session 2A15: Robot Control (3)

Room 15, 10:30-12:30

2A15-1	Mobile Robot Mapping with Geometrically Inconsistent Measurements in Dynamic Environments	Kanji Tanaka (Kyushu Univ.), Eiji Kondo (Kyushu Univ.)
2A15-2	Bias Estimation of DGPS Multi-Path Datafor Localization of Mobile Robot	Yong-Shik Kim (AIST), Bong Keun Kim (AIST), Kohtaro Ohba (AIST), Akihisa Ohya (Univ. of Tsukuba)
2A15-3	Technique to Correct the Localization Error of the Mobile Robot Positioning System Using an RFID	Min Cheol Lee (Pusan National Univ.), Hyun-Jeong Lee (Pusan National Univ.), Moon Sik Kim (Pusan National Univ.)
2A15-4	Walking Control Based on the SIPUP Model	Koki Kameta (Hirosaki Univ.), Akinori Sekiguchi (Hirosaki Univ.), Yuichi Tsumaki (Hirosaki Univ.), Dragomir N. Nenchev (Musashi Inst. Thch.)
2A15-5	A Vision-Based Navigation Control System for A Mobile Service Robot	Mohamed Abdellatif (Qatar Univ.)

Session 2A16: OS: Sensing, Control and Safety Systems for Smart Vehicle Automation (1)

Room 16, 10:30-12:30

2A16-1	Obstacle Map Generation Using Virtual Disparity Image	Naoki Suganuma (Kanazawa Univ.), Naofumi Fujiwara (Kanazawa Univ.)
2A16-2	Localization of Mobile Robots by Multiple Landmark Recognition	Ryohei Ozawa (Univ. of Fukui), Yasushi Mae (Osaka Univ.), Mamoru Minami (Univ. of Fukui)
2A16-3	Autonomous Flight Control for RC Helicopter Using Camera Image	Syuhei Saito (Musashi Institute of Technology), Yue Bao (Musashi Institute of Technology), Takahito Mochizuki (Musashi Institute of Technology)
2A16-4	Fault Detection of Railway Vehicle Suspensions Using Multiple Model Approach	Yusuke Hayashi (Nihon Univ.), Hitoshi Tsunashima (Nihon Univ.), Yoshitaka Marumo (Nihon Univ.)
2A16-5	Design of Lane Tracking Controller for Motorcycles	Nozomi Katagiri (Nihon Univ.), Yoshitaka Marumo (Nihon Univ.), Hitoshi Tsunashima (Nihon Univ.)

Session 2B02: Intelligent Systems

Room 2, 13:30-15:10

2B02-1	Measurement of Correlation between Age and the Human Visual Interpolation Ability	Yinlai Jiang (Kochi Univ. of Tech.), Shuoyu Wang (Kochi Univ. of Tech.)
2B02-2	3D Template Based Automatic Landmine Detection from GPR Data	Zakarya Zyada (Nagoya Univ.), Toshio Fukuda (Nagoya Univ.)
2B02-3	Theoretical Analysis on Effects of Room Arrangement on Inhabitant Behaviors	Tomoko Ohya (Kyoto Univ.), Masanori Shimamoto (Kyoto Univ.), Hiroshi Kawakami (Kyoto Univ.), Takayuki Shiose (Kyoto Univ.), Osamu Katai (Kyoto Univ.)
2B02-4	A Note on Morphological Analysis Methods based on Statistical Decision Theory	Yasunari Maeda (KIT), Naoya Ikeda (KIT), Hideki Yoshida (KIT), Yoshitaka Fujiwara (KIT), Toshiyasu Matsushima (Waseda Univ.)

2B02-5	Buying and Selling Stocks of Multi Brands using Genetic Network Programming with control nodes	Zhiguo Bao (Waseda Univ.), Shigo Mabu (Waseda Univ.), Kotaro Hirasawa (Waseda Univ.), Jinglu Hu (Waseda Univ.)

Session 2B03: OS: Evolutionary and Distributed Systems Towards Real-world Applications(2)
Room3, 13:30-15:10

2B03-1	An Evolutionary System for the Prediction of Gene Regulatory Networks in Biological Cells	Tetsuya Maeshiro (Univ. of Tsukuba), Shin-ichi Nakayama (Univ. of Tsukuba), Hitoshi Hemmi (NTT CS Labs), Katsunori Shimohara (Doshisha
2B03-2	Evolution of Human Competitive Driving Agent Operating a Scale Model of a Car	Ivan Tanev (Doshisha Univ.), Katsunori Shimohara (Doshisha Univ.)
2B03-3	Emergent Behavior Based on Disparity of Individual Capability	Takamasa Iio (Doshisha Univ), Ivan Tanev (Doshisha Univ), Katsunori Shimohara (Doshisha Univ)

Session 2B04: OS: Web-based Technologies in Exploratory Learning and Monitoring Cognition
Room 4, 13:30-15:10

2B04-1	A Support Tool for English Composition Using a Search Engine	Yuichi Tsunashima (Kagawa Univ.), Yuta Kawasaki (Kagawa Univ.), Kazuaki Ando (Kagawa Univ.)
2B04-2	A Calculating System of Attractive Value for Commercial Message on Large Screen	Daisuke Kusaka (Kagawa Univ.), Junya Abe (Kagawa Univ.), Yukio Hori (Kagawa Univ.), Yoshiro Imai (Kagawa Univ.)
2B04-3	VR Edutainment Materials Platform for Elementary Dynamics Experiment with HI Input Devices	Shun Tokuyama (Kagawa Univ.), Yuma Hanafusa (Kagawa Univ.), Hiroyuki Tominaga (Kagawa Univ.), Hiroyuki Kitajima (Kagawa Univ.)
2B04-4	Fill-in Type Testing System Cooperated in Both of Web and Stand-alone Execution for C Programming Exercise	Shingo Kuninobu (Kagawa Univ.), Hiroyuki Tominaga (Kagawa Univ.), Toshihiro Hyashi (kagawa Univ.)
2B04-5	Development of a Self Study Material Contribution and Sharing System for Passing the Information Technology Engineer Certifying Examinations	Toshihiro Hayashi (Kagawa Univ.), Takanori Mizuno (Kagawa Univ.), Hiroyuki Tominaga (Kagawa Univ.), Toshinori Yamasaki (Univ. of the Air)

Session 2B05: Robust Control (2)
Room 5, 13:30-15:10

2B05-1	Randomized Algorithms for Robust Feasibility Problems with General Nonconvex Constraints	Takayuki Wada (Kobe Univ.), Yasumasa Fujisaki (Kobe Univ.)
2B05-2	Auto Tuning on Robust Parameters of a PID Controller for a 2nd-order Adjusted System with One Changeable Parameter	Makoto Katoh (Osaka Institute of Technology), Atsushi Fujiwara (Osaka Institute of Technology)
2B05-3	Three-Degree-of-Freedom Internal Model Control for Unstable Process	Rui Wang (Yamagata Univ.), Keiji Watanabe (Yamagata Univ.)
2B05-4	Stochastic Nash Games with State-Dependent Noise	Hiroaki Mukaidani (Hiroshima Univ.), Toru Yamamoto (Hirohsima Univ.), Muneomi Sagara (Hiroshima Univ.)

Session 2B06: Manufacturing systems
Room 6, 13:30-15:10

2B06-1	Development of Pattern Driver for Piezo Nozzle Control of Multi-Print Head in 3D SFFS Using UV Resin	Yu-Lim Jun (Pusan National Univ.), Min-Cheol Lee (Pusan National Univ.), Jung-su Kim (Pusan National Univ.)
2B06-2	A Study of 3D Printing Method in the Office SFF System	Jung-Su Kim (Pusan National Univ.), Min-Cheol Lee (Pusan National Univ.), Dong-Su Kim (KIMM)
2B06-3	Development of High Precision X-Y Stage using for Production and Inspection Equipment of Organic Electro Luminescence Display	Myung-Jin Chung (Korea Polytechnic Univ.)
2B06-4	Meshed Matching Algorithm For LCD Panel Inspection Machine	Jun Bong Song (LG Electronics), Seung Hwan Yun (LG Electronics), Won Jeong Lee (LG Electronics)

Session 2B07: Modeling, System Identification and Estimation (1)
Room 7, 13:30-15:10

2B07-1	Characterization of Road Traffic Flow from Measured Data of Speed and Time-Headway	Suzuki Shosuke (Tohoku Bunka Gakuen Univ.), Tsunoda Masaki (Tohoku Bunka Gakune Univ.), Taniguchi Masanari (Tohoku Bunka Gakuen Univ.), Takagi Tasuku (Tohoku Univ. Emeritus)
2B07-2	High Frequency Modeling of PMSM Connected to Long Cable	Ali Ahmed Adam (Yildiz Technical Univ.), Kayhan Gulez (Yildiz Technical Univ.)
2B07-3	Estimation of Rotary Inverted Pendulum by using the Unscented Kalman Filter -Estimation of the Initial State	Min Zheng (Univ. of Tokushima), Kenji Ikeda (Univ. of Tokushima), Takao Shimomura (Univ. of Tokushima)
2B07-4	GPS/INS Integration Using Nonlinear Blending Filters	Javad Rezaie (Univ. of Tehran), Behzad Moshiri (Univ. of Tehran), Babak N Araabi (Univ. of Tehran), Ali Asadian (Univ. of Tehran)
2B07-5	Structures for Self-monitoring of Measurement Systems	Franz Mesch (Karlsruhe Univ.)

Session 2B08: Network Systems
Room 8, 13:30-15:10

2B08-1	Quantitative evaluation of traffic measurement for IP-based control system	Takanori Shimomura (Yokogawa Electric Corp.), Kazuya Kubo (Yokogawa Electric Corp.), Nobuo Okabe (Yokogawa Electric Corp.)
2B08-2	A High-speed, Low-cost and Secure Implementation based on Embedded Ethernet and Internet for SCADA Systems	Vinh Ich Nguyen (Chulalongkorn Univ.), Watit Benjapolakul (Chulalongkorn Univ.), Krisada Visavateeranon (Chulalongkorn Univ.)
2B08-3	Security Design of Remote Maintenance System for Nuclear Power Plants, based on ISO/IEC 15408	Ryosuke Watabe (Mitsubishi Electric Corp.), Tadashi Oi (Mitsubishi Electric Corp.), Yoshio Endo (Mitsubishi Electric Corp.)

2B08-4	An Implementation of Field Overlay Architecture on Controllers	Kazuyuki Ito (Yokogawa Electric Corp.), Eiji Nagai (Yokogawa Electric Corp.), Takeshi Ohno (Yokogawa Electric Corp.)

Session 2B09: OS: Recent Advances in Automotive Control
Room 9, 13:30-15:10

2B09-1	An Experimental Comparison of Nonholonomic Control Methods: Automatic Parking Benchmark	Kang-Zhi Liu (Chiba Univ.), Masaki Horii (Chiba Univ.)
2B09-2	Power Assist Control for Slide Doors	Kensuke Osamura (Calsonic Kansei Corp.), Shinya Kobayashi (Calsonic Kansei Corp.), Mitsuo Hirata (Utsunomiya Univ.), Hitoshi Okamoto
2B09-3	Benchmark Problem for Automotive Engine Control	Akira Ohata (Toyota Motor Corp.), Junichi Kako (Toyota Motor Corp.), Tielong Shen (Sophia Univ.), Kazuhisa Ito (Tottori Univ.)
2B09-4	A Case Study of Cyclic Balancing Control for SI Engines	Li Po (Wuhan Univ. Sophia Univ.)
2B09-5	Output Feedback Model Predictive Control for An Electromechanical Valve Actuator	Masakazu Mukai (Kyushu Univ.), Suguru Seikoba (Kyushu Univ.), Takehito Kawabe (Kyushu Univ.)

Session 2B10: OS: Recent Progress in Temperature Measurement (2)
Room 10, 13:30-15:10

2B10-1	Range Ratio of Topcon Radiation Thermometers	Fumihiro Sakuma (AIST), Laina Ma (AIST)
2B10-2	Improvement of Size of Source Effect Measurement of Standard Radiation Thermometers	Laina Ma (AIST), Fumihiro Sakuma (AIST)
2B10-3	Temperature Sensor Application of Fluorescence Film	Hiroaki Aizawa (Toyo Univ.), Yumemi Kano (Toyo Univ.), Tooru Katsumata (Toyo Univ.), Shuji Komuro (Toyo Univ.)
2B10-4	Compound Hybrid-type Sensor for Wide Temperature Range	Atsushi Gogami (Toyo Univ.), Ryo Shinagawa (Toyo Univ.), Kensuke Hiraka (Chino Corp.), Tohru Iuchi (Toyo Univ.)

Session 2B11: Sensor and Transducer (1)
Room 11, 13:30-15:10

2B11-1	Fluorescence sensor using two-dimensional phosphor array	Toru Katsumata (Toyo Univ.), Hiroshi Yamaguchi (Toyo Univ.), Chieko Nakayama (Toyo Univ.), Hiroaki Aizawa (Toyo Univ.), Shuji Komuro (Toyo
2B11-2	Fluorescence Oxygen Sensor using Photo Quenching with Oxygen Molecule	Hiroaki Aizawa (Toyo Univ.), Tooru Katsumata (Toyo Univ.), Shuji Komuro (Toyo Univ.)
2B11-3	Improvement of GPS Positioning Accuracy by Ionospheric Delay Correction	Nao Akiyama (Keio Univ.), Toshiyuki Tanaka (Keio Univ.), Masashi Yonekawa (Keio Univ.)
2B11-4	GPS Orbit Determination using Several Reference	Masashi Nomura (Keio Univ.), Tanaka Toshiyuki (Keio Univ.), Masashi Yonekawa (Keio Univ.)
2B11-5	Computer based Method for Determining of Response Time and Immersion Depth of Industrial Thermometers	Zeljko Hocenski (Univ. J.J. Strossmayer), Ljubivoj Cvitas (Siemens d.d. Zagreb)

Session 2B12: Remote Sensing
Room 12, 13:30-15:10

2B12-1	Subpixel Estimation of Land Cover in a Remotely Sensed Image Using Spectral Information of Surrounding Pixels	Wataru Murakami (Nagasaki Univ.), Ryuichi Nakama (Nagasaki Univ.), Senya Kiyasu (Nagasaki Univ.), Sueharu Miyahara (Nagasaki Univ.)
2B12-2	A Proposition of Automatic Mixed Pixel Classification for Remotely Sensed Multiscpectral Image	Mitsuhiro Tomosada (ROIS ISM)
2B12-3	Automatic Registration of Aerial Oblique Images and a Digital Map	Shokei Kawai (Shizuoka Univ.), Hitoshi Saji (Shizuoka Univ.)
2B12-4	Analysis of Road Blockage after Disaster Using Aerial Images	Kazuya Urabe (Shizuoka Univ.), Hitoshi Saji (Shizuoka Univ.)
2B12-5	Development of a Spectral Radiance Calibration Standard in the Shortwave Infrared (SWIR) Range	Yasuji Yamamoto (JAXA), Yasuhiro Nakajima (RESTEC)

Session 2B14: OS: Sound and Vibration Measurement
Room 14, 13:30-15:10

2B14-1	Gradient analysis of Sound Pressure Field by Opt-acoustic Wave-Frontal Detection	Kenbu Teramoto (Saga Univ.), Md Tauhudul Islam Khan (Saga Univ.), Akito Uekihara (Saga Univ.)
2B14-2	Non-contact OFL measurement for Bone Conductive Transducers	Kenbu Teramoto (Saga Univ.), Akito Uekihara (Saga Univ.)
2B14-3	Shape Recognition for Transparent Objects Using Ultrasonic Sensor Array	Kozo Ohtani (Hiroshima Inst. of Tech.), Mitsuru Baba (Ibaraki Univ.)
2B14-4	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)

Session 2B15: OS: SICE City
Room 15, 13:30-15:10

2B15-1	Pattern Recognition for Video Surveillance and Physical Security	Hiroshi Kage (Mitsubishi Electric Corp.), Makito Seki (Mitsubishi Electric Corp.), Kazuhiko Sumi (Mitsubishi Electric Corp.), Ken-ichi Tanaka (Mitsubishi Electric Corp.), Kazuo Kyuma (Mitsubishi Electric Corp.)
2B15-2	Development of a Search Robot - Sensor Fusion of RFID and CCD Camera -	Shin-ichiro Kumagai (Tokyo Metropolitan Univ.), Yasuchika Mori (Tokyo Metropolitan Univ.)
2B15-3	SICE City: Some Discussions Based on Systems Approach's Perspective	Hisashi Tamaki (Kobe Univ.)
2B15-4	Learning Algorithms for Compression and Evaluation of Information from Large Data Sets	Gancho Vachkov (Kagawa Univ.), Hidenori Ishihara (Kagawa Univ.)
2B15-5	Perceptual System of Networked Partner Robots	Hiroyuki Masuta (Tokyo Metropolitan Univ.), Naoyuki Kubota (Tokyo Metropolitan Univ.)

Session 2B16: IOS: Sensing, Control and Safety Systems for Smart Vehicle Automation (2)
Room16, 13:30-15:10

2B16-1	People Tracking with In-vehicle Multi-Laser Range Sensors	Masafumi Hashimoto (Doshisha Univ.), Yosuke Matsui (Doshisha Univ.), Kazuhiko Takahashi (Doshisha Univ.)
2B16-2	A Model-Based Fault Diagnosis of Sensor and Actuator of Powered Wheelchair	Fumihiro Itaba (Doshisha Univ.), Masafumi Hashimoto (Doshisha Univ.), Kazuhiko Takahashi (Doshisha Univ.)
2B16-3	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)
2B16-4	Research on Rescue Robots with Force Sensors on the Fingertips for Rubble Withdrawal Works	Masatoshi Hatano (Nihon Univ.)

Session 2B17: Human Interface (3)
Room 17, 13:30-15:10

2B17-1	Transmission of Stroking Sensation on a Skin by Higher-psychological Perception	Yohsuke Mizukami (Kagawa Univ.), Keiji Uchida (SCA), Hideyuki Sawada (Kagawa Univ.)
2B17-2	Determination of Target Position of Meal Assistance Orthosis Using EOG Signal and Dish Image	Satoru Goto (Saga Univ.), Akinori Yamada (Saga Univ.), Wataru Hashimoto (Saga Univ.), Takenao Sugi (Saga Univ.), Masatoshi Nakamura (Saga Univ.)
2B17-3	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	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

Thursday, September 20, 2007

Session 3A01: Systems Theory and Intelligent Systems
Room 1, 10:30-12:30

3A01-1	Stability of Networked Control System with Dynamic Quantizer and Event-driven Zero-order Hold	Eiji Konaka (Meijo Univ.)
3A01-2	Stabilization of a Networked Control System under Bounded Disturbances with Unreliable Communication Links via Common	Akihiro Ohori (NAIST), Kiminao Kogiso (NAIST), Kenji Sugimoto (NAIST)
3A01-3	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.)
3A01-4	Sweet Spot control Method of Directional Antenna Beam	Kyo-Hwan Hyun (Dongguk Univ.), Seong-Boo Jeong (Seo-il College), Ki-Hwn Eom (Dongguk Univ.)
3A01-5	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.)

Session 3A02: Biological and Physiological Engineering (1)
Room 2, 10:30-12:30

3A02-1	Electrical Impedance Tomography Using Tetrapolar Method With Eddy Current	Ahsan-UI Ambia (Shizuoka Univ.), Shogo Toda (Shizuoka Univ.), Tadashi Takemae (Shizuoka Univ.), Yukio Kosugi (Tokyo Ins. of Tech.), Minoru Hongo (Shinshu Univ.)
3A02-2	Time Frequency Analysis of Biological Signals during Sleep	Takasi Tohara (Kyushu Institute of Technology)
3A02-3	Region Growing Method Using Edge Sharpness for Brain Ventricle Detection	Chulho Won (Kyungil Univ.), Dong Hun Kim (Kyungpook National Univ.)
3A02-4	Pattern Recognition of EEG Signals During Motor Imagery ~based on Directed Information Analysis~	Miyo Taniguchi (Kyushu Institute of Technology)
3A02-5	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)

| 3A02-6 | Parallel Factor Analysis can Decompose Human EEG during a Finger Movement Task | Hiroaki Mizuhara (Kyoto Univ.), Etsuji Yonehara (Okayama Univ.), Akio Gofuku (Okayama Univ.) |

Session 3A03: OS: Computational Intelligence in Neural Networks (1)
Room 3, 10:30-12:30

3A03-1	A Synthesis Method of Gene Networks based on Gene Expression by Network Learning-realization of Separatrix	Yoshihiro Mori (Kyoto Institute of Technology), Takashi Kadowaki (Kyoto Institute of Technology), Yasuaki Kuroe (Kyoto Institute of Technology), Takehiro Mori (Kyoto Institute of Technology)
3A03-2	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)
3A03-3	Computer Aided Diagnosis for Pulmonary Nodules by Shape Feature Extraction	Kazunori Takei (TIS Inc.), Noriyasu Homma (Tohoku Univ.), Tadashi Ishibashi (Tohoku Univ.), Masao Sakai (Tohoku Univ.), Makoto Yoshizawa
3A03-4	An Online Face Recognition System with Incremental Learning Ability	Seiichi Ozawa (Kobe Univ.), Michiro Hirai (Kobe Univ.), Shigeo Abe (Kobe Univ.)

Session 3A04: OS: Robust Robot Vision
Room 4, 10:30-12:30

3A04-1	Color Edge Detection using the Skellam Distribution as a Sensor Noise Model	Youngbae Hwang (KAIST), In-So Kweon (KAIST), Jun-Sik Kim (CMU)
3A04-2	Human Sensing using the Mutual Subspace Method with Multi-view Image	Kazuhiro Fukui (Univ. of Tsukuba), Xi Li (Univ. of Tsukuba)
3A04-3	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	Integration of Multiple Methods for Robust Object Recognition	Al Mansur (Saitama Univ.), Yoshinori Kuno (Saitama Univ.)
3A04-5	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	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)

Session 3A05: Image Processing (1)
Room 5, 10:30-12:30

3A05-1	Three Dimensional Measurement Using Fisheye Stereo Vision	Takeshi Nishimoto (Kagawa Univ.), Jun'ichi Yamaguchi (Kagawa Univ.)
3A05-2	Human Tracking Using Fisheye Images	Yohei Kubo (Kagawa Univ.), Jun'ichi Yamaguchi (Kagawa Univ.)
3A05-3	Optical Flow Estimator with Multichannel Integration	Teruo Yamaguchi (Kumamoto Univ.), Naofumi Harada (Hitachi Ltd.)
3A05-4	Simultaneous Estimation of Optical Flow and Motion Parameters	Tomoya Kawakami (Kumamoto Univ.), Teruo Yamaguchi (Kumamoto Univ.), Hiroshi Harada (Kumamoto Univ.)
3A05-5	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	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.)

Session 3A06: Emergent Technologies
Room 6, 10:30-12:30

3A06-1	A Novel Control Using a Pseudo-Neuron Network Implemented by Nonlinear Electro-optic Effect Devices	Toru Asahara (Okayama Univ.), Hajime Suzuki (Okayama Univ.), Shigetoshi Nara (Okayama Univ.)
3A06-2	Open Control Platform Implementation for Autonomous Underwater Vehicle	Nanang Syahroni (Pusan National Univ.), Young Bong Seo (Pusan National Univ.), Jae Weon Choi (Pusan National Univ.)
3A06-3	Self-Reproduction Model for Communication-Restricted Cellular Automata	Koutarou Tachibana (Univ. of Osaka Electro-Communication), Ryoh Takebayashi (Univ. of Osaka Electro-Communication), Hiroshi Umeo (Univ.
3A06-4	De-noising Method by Combining RI-Wavelet and Adaptive Line Enhancer	zhong zhang (Toyohashi Univ. of Technology)

Session 3A07: Signal Processing (3)
Room 7, 10:30-12:30

3A07-1	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	Robust Facial Element Extraction under Lighting Variation	Hidekazu Tsuboi (Shizuoka Univ.), Hitoshi Saji (Shizuoka Univ.)
3A07-3	Humgenic Changes in Large Scale Temporal Correlation of EEG in BP	Rajkishore Prasad (UEC), Fumitoshi Matsuno (UEC)
3A07-4	How to Hum Like a Bumble Bee ?	Rajkishore Prasad (UEC), Fumitoshi Matsuno (UEC)
3A07-5	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
3A07-6	Non-wetted Thermal Micro Flow Sensor	Minako Terao (Yokogawa Electric Corp.), Tomomi Akutsu (Yokogawa Electric Corp.), Yoshiaki Tanaka (Yokogawa Electric Corp.)

Session 3A08: OS: System Integration and Control Design for Autonomous Mobile Robots
Room 8, 10:30-12:30

3A08-1	Analysis of Camera Images Influenced by Light Variation	Kuo-Yang Tu (NKFUST), Chien-Hua Chen (NKFUST)
3A08-2	Implementation of Autonomous vehicles with the Hough Transform and Fuzzy Control	Pau-Lo Hsu (National Chiao-Tung Univ.), Yu-Kuen Tsai (National Chiao-Tung Univ.), Lin-Yi Jian (National Chiao-Tung Univ.), Bor-Chyun Wang (China Univ. of Technology)
3A08-3	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
3A08-4	Develop an Intelligent Power Detection and Diagnosis System for Mobile Robot	Lan Kuo Su (National Yunlin Univ. of Science & Technology), L Ting Chein (Wu-Feng Institute of T)
3A08-5	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	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

Session 3A09: OS: Tactile Sensing
Room 9, 10:30-12:30

3A09-1	Gravity-Based 3D Shape Measuring Sheet	Takayuki Hoshi (Univ. of Tokyo), Hiroyuki Shinoda (Univ. of Tokyo)
3A09-2	Finger Ring Device for Tactile Sensing and Human Machine Interface	Takayuki Iwamoto (Univ. of Tokyo), Hiroyuki Shinoda (Univ. of Tokyo)
3A09-3	Tactile Sensing Cube Measuring Stress Tensor	Shohei Kiyota (The Univ. of Tokyo), Hiroyuki Shinoda (Univ. of Tokyo)
3A09-4	Measuring Finger Peripheral Signal Based on Electrical Synchronization	Takuya Hasegawa (Univ. of Tokyo), Takayuki Iwamoto (Univ. of Tokyo), Hiroyuki Shinoda (Univ. of Tokyo)
3A09-5	Myoelectric Pattern Measurement Based on Two-Dimensional Communication Technology	Yasutoshi Makino (Univ. of Tokyo), Hiroyuki Shinoda (Univ. of Tokyo)

Session 3A10: OS: Adaptive Locomotion Control under Unstructured Environments
Room 10, 10:30-12:30

3A10-1	Adaptive Amoeboid Locomotion That Exploits Law of Conservation of Protoplasmic Mass	Takuya Umedachi (Tohoku Univ.), Akio Ishiguro (Tohoku Univ.)
3A10-2	Improvement of Learning Efficiency by Exploiting Multiarticular Muscles	Wataru Watanabe (Nagoya Univ.), Akio Ishiguro (Tohoku Univ.)
3A10-3	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	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	Efficient Bipedal Walking Using Delayed Stepping Reflex	Yuji Otoda (Univ. of Electro Communications), Hiroshi Kimura (Univ. of Electro Communications), Kunikatsu Takase (Univ. of Electro
3A10-6	Adaptive Locomotor Control in Bipedal Walking Monkey	Futoshi Mori (Yamaguchi Univ.), Katsumi Nakajima (Kinki Univ.)

Session 3A11: Mechanical Systems Control (3)
Room 11, 10:30-12:30

3A11-1	A New Velocity Measurement Method using Linear Type Hall-effect Sensor for an Electro-mechanical Fin Actuator	Jeong-Hoi Gu (ADD), Chi-Young Song (ADD), Sang-Yeal Lee (ADD)
3A11-2	Multirate Servoing for Disturbances which do Not Satisfy a Matching Condition	Akira Shimada (Polytechnic Univ.), Tsuyoshi Takeda (Polytechnic Univ.), Masanori Fujita (Yokohama National Univ.)
3A11-3	Running Control of Biped Robot	Itaru Miyagawa (Hosei Univ.), Kajiro Watanabe (Hosei Univ.)
3A11-4	An Intelligent Control for State-Dependent Nonliner Actuator and Its Application to Pneumatic Servo System	Mikio Yamazaki (Univ. of Tsukuba), Seiji Yasunobu (Univ. of Tsukuba)
3A11-5	Feed Forward Adaptive Control of a Linear Brushless DC Motor	S. Javad Imen (Mazandaran Univ. of Technology), Mohsen Shakeri (Mazandaran Univ. of Technology)
3A11-6	Generalized Minimum Variance Control of Slider-Crank Mechanism	Masaru Saitoh (Tokyo Denki Univ.), Katsuhisa Furuta (Tokyo Denki Univ.)

Session 3A12: Multivariable Control
Room 12, 10:30-12:30

3A12-1	Constrained Stabilizing Regulator with Tuning Parameters	Yasumasa Fujisaki (Kobe Univ.)
3A12-2	Relationship between Sensing Properties and Achievable Control Performances in Feedback Control	Tetsuya Arita (Univ. of Tokyo), Shinji Hara (The Univ. of Tokyo)
3A12-3	Stability Analysis of Interacting Systems in Air-Conditioning System	Yuji Yamakawa (Univ. of Tokyo), Takanori Yamazaki (Oyama National College of Technology), Kazuyuki Kamimura (Yamatake Co., Ltd.), Shigeru

3A12-4	Reduced Order Model Predictive Control - an Approach based on System Decomposition -	Naoyuki Hara (Tokyo Metropolitan Univ.), Akira Kojima (Tokyo Metropolitan Univ.)
3A12-5	Parametrization of All Strictly Proper Stabilizing Controllers	Kazuyoshi Mori (Univ. of Aizu)

Session 3A14: OS: Navigation, Guidance, and Control in Aerospace Systems (1)
Room 14, 10:30-12:30

3A14-1	Robust Attitude Control via Quaternion Feedback Linearization	Sang-Jae Kim (ADD), Chang-Kyung Ryoo (Inha Univ.), Keeyoung Choi (Inha Univ.)
3A14-2	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)
3A14-3	A Study of the Navigation for Formation Flying of Spacecraft	Tsutomu Ichikawa (Japan Aerospace Exploration Agency)
3A14-4	Impact Angle Control Guidance Law Using Lyapunov Function and PSO method	Daekyu Sang (KAIST), Byoung-Mun Min (KAIST), Min-Jea Tahk (KAIST)
3A14-5	Autonomous Flight Control System for Longitudinal Motion of a Helicopter	Atsushi Fujimori (Univ. of Yamanashi), Kyohei Miura (Shizuoka Univ.)
3A14-6	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)

Session 3A15: OS: Advanced Systems for Safety of Industry
Room 15, 10:30-12:30

3A15-1	Agent-Based Operator Support System Configuration for Maintaining Necessary Functions of Plants	Akio Gofuku (Okayama Univ.), Tadashi Ago (Okayama Univ.), Takahiro Sato (Okayama Univ.)
3A15-2	Regulation of Productions in Plural Furnaces for Ore Supply Changes	Yingda Dai (Okayama Univ.), Junichi Kikuchi (Okayama Univ.), Masami Konishi (Okayama Univ.), Jun Imai (Okayama Univ.)
3A15-3	Development of a Microreactor for Rapid Analysis of Chemical Reaction Kinetics	Masa-aki Ebata (Okayama Univ.), Akinori Muto (Okayama Univ.), Akira Inoue (Okayama Univ.)
3A15-4	User Modeling in the Case of Artifact Operation based on Channel Theory	Hisashi Handa (Okayama Univ.)
3A15-5	Neurofuzzy-Based Learning Algorithm for Fault Detection & Simulation	Hossam E. A.Gabbar (Okayama Univ.)
3A15-6	Operator based Robust Control for Nonlinear Systems with Hysteresis	Changan Jiang (Okayama Univ.), Mingcong Deng (Okayama Univ.), Akira Inoue (Okayama Univ.)

Session 3A16: Human Interface (4)
Room 16, 10:30-12:30

3A16-1	Haptic Recognition and Mapping of Driving Road Environment by Haptograph	Yuki Yokokura (Nagaoka Univ. of Tech.), Seiichiro Katsura (Nagaoka Univ. of Tech.), Kiyoshi Ohishi (Nagaoka Univ. of Tech.)
3A16-2	Haptic Broadcasting of Grasping Operation by Multilateral Control	Seiichiro Katsura (Nagaoka Univ. of Tech.), Kiyoshi Ohishi (Nagaoka Univ. of Tech.)
3A16-3	Interactive Robot Supporting System for Object Acquisition	Tomoyuki Murakami (Univ. of electro-communications), Songmin Jia (Univ. of electro-communications), Kunikatsu Takase (Univ. of electro-
3A16-4	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	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	Sensorless Interaction Force Control Based on Modal Space Design for Twin-Driven System	Chowarit Mitsantisuk (Nagaoka Univ. of Tech.), Seiichiro Katsura (Nagaoka Univ. of Tech.), Kiyoshi Ohishi (Nagaoka Univ. of Tech.)

Session 3A17: Robot Control (4)　　Room 17, 10:30-12:30

3A17-1	A Free Space Optics System for Seamless Transmission Between Single-mode Optical Fibers	Koichi Yoshida (NTT), Takeshi Tsujimura (NTT), Kazuyuki Shiraki (NTT), Izumi Sankawa (NEL)
3A17-2	Automatic Optical Axis Alignment System for Free-space Optics Transmission through Windowpanes	Takeshi Tsujimura (NTT), Koichi Yoshida (NTT), Toshio Kurashima (NTT)
3A17-3	Balloon Burster: A CORBA-Based Visual Servoing for Humanoid Robot in a Distributed Environment	Joongjae Lee (KIST), Minseok Jie (KIST), Seungsu Kim (KIST), Munho Jung (KIST), Changhwan Kim (KIST)
3A17-4	Sensibility Control of Redundant Robots: Numerical Analysis and Experimental Results	Daniela Vassileva (Gifu Univ.), Shingo Tajima (Gifu Univ.), George Boiadjiev (Bulgarian Acad. of Science), Haruhisa Kawasaki (Gifu Univ.), Tetsuya Mouri (Gifu Univ.)
3A17-5	Cooperation between a 4 DOF Robotic Hand and a Human for Carrying an Object Together	Ashish Dutta (IIT Kanpur), Pankaj Aggarwal (IIT Kanpur), Bishakh Bhattacharya (IIT Kanpur)

Session 3B03: OS: Computational Intelligence in Neural Networks (2)
Room 3, 13:30-15:10

| 3B03-1 | Nonlinear System Identification by SOM with GP Based Local Modeling | Nozomi NH Hashimoto (Osaka Univ.), Toshiharu TH Hatanaka (Osaka Univ.), Katsuji KU Uosaki (Fukui Univ. of Tech.), Akira AK Kitamura (Tottori |

3B03-2	A Solution to the SLAM Problem Based on Fuzzy Kalman Filter using Pseudolinear Measurement Model	Chandima Dedduwa Pathiranage (Saga Univ.), Keigo Watanabe (Saga Univ.), Kiyotaka Izumi (Saga Univ.)
3B03-3	Fish Catching by Visual Servoing using Neural Network Prediction	Toshiaki Yoshida (Univ. of Fukui), Mamoru Minami (Univ. of Fukui), Yasushi Mae (Osaka Univ.)
3B03-4	Energy Region Design Using Projection for Three-Link Underactuated Manipulators	Keisuke Ichida (Saga Univ.), Kiyotaka Izumi (Saga Univ.), Keigo Watanabe (Saga Univ.)

Session 3B04: OS: Driver Intent Inference — Room 4, 13:30-15:10

3B04-1	Inference of Large Truck Drivers Intent to Change Lanes for Passing a Lead Vehicle	Makoto Itoh (Univ. of Tsukuba), Kenji Yoshimura (NMRI), Toshiyuki Inagaki (Univ. of Tsukuba)
3B04-2	Modeling and Analysis of Driver's Decision Making based on Logistic Regression Model	Shun Taguchi (Nagoya Univ.), Shinkichi Inagaki (Nagoya Univ.), Tatsuya Suzuki (Nagoya Univ.), Soichiro Hayakawa (Toyota T.I.), Nuio Tsuchida (Toyota T.I.)
3B04-3	On Driver's Behavior in Car Following	Takahiro Wada (Kagawa Univ.), Shun'ichi Doi (Kagawa Univ.), Keisuke Imai (Kagawa Univ.), Naohiko Tsuru (DENSO CORPORATION), Kazuyoshi Isaji (DENSO CORPORATION), Hiroshi Kaneko (PARIS MIKI Inc.)
3B04-4	Driver Intent Interface and Dynamic Displays for Active Safety:An Overview of Selected Recent Studies	Mohan Trivedi (Univ. of California)

Session 3B05: Temperature Measurement — Room 5, 13:30-15:10

3B05-1	Fluorescence Thermo-sensor using Silicone Composite with Cr Doped Spinel	Toru Katsumata (Toyo Univ.), Junko Someya (Toyo Univ.), Chika Nojiri (Toyo Univ.), Yumemi Kano (Toyo Univ.), Hiroaki Aizawa (Toyo Univ.)
3B05-2	Thermo-sensor using Silicone Composite with Cr Doped Garnet	Toru Katsumata (Toyo Univ.), Miki Kaneda (Toyo Univ.), Kaoru Orihara (Toyo Univ.), Yumemi Kano (Toyo Univ.), Hiroaki Aizawa (Toyo Univ.)
3B05-3	Fluorescence Thermo-sensor using Mixture of Various Phosphors	Toru Katsumata (Toyo Univ.), Susumu Harako (Toyo Univ.), Chieko Nakayama (Toyo Univ.), Hiroaki Aizawa (Toyo Univ.), Shuji Komuro (Toyo
3B05-4	Temperature Distribution and Wind Velocity Vector Measurement using Ultrasonic CT Technique	Jun-ya Takayama (Tokyo Tech.), Yuki Watanabe (Tokyo Tech.), Tetsuya Takahoshi (Tokyo Tech.), Kazuo Ohshima (NTT Facilities Inc.), Shinji Ohyama (Tokyo Tech.)
3B05-5	Thermal Impedance Modeling of a Temperature Dependent Resistance	Heidi Dumele (Univ. of Bundeswehr Munich), Uwe Troeltzsch (Univ. of Bundeswehr Munich), Michael Horn (Univ. of Bundeswehr Munich)

Session 3B06: Automation & Estimation — Room 6, 13:30-15:10

3B06-1	Quality Improvement of Steel Products by using Multivariate Data Analysis	Yoshiaki Nakagawa (Sumitomo Metals Kokura), Manabu Kano (Kyoto Univ.), Shigemasa Nakagawa (Sumitomo Metal Industries), Takashi Tanizaki (Sumitomo Metals Kokura)
3B06-2	Equivalent Thermal Model for Main Transformer in Hot Strip Mill and Optimization of Load	Jin-wook Seok (POSTECH), Sang-wook Shim (Kwangyang steel works, POSCO), Sang-chul Won (POSTECH)
3B06-3	Development of Bending Gap Measurement and Position Control Technique for Unmanned Slab Crane	Yoojong Yu (POSTECH), Youngsoo Kim (POSCO), Sehoon Kim (POSTECH), Daehyun Ji (POSTECH), Dowan Kim (POSTECH), Jooman
3B06-4	Design and Implementation of a CDMA-Based Remote Monitoring and Controlling System	Li Cai (Chinese Academy of Sciences), Zengguang Hou (Chinese Academy of Sciences), Min Tan (Chinese Academy of Sciences)
3B06-5	Lifetime Evaluation of Self-Modulated MEMS Infrared Light Source made of Single Crystalline Silicon	Naoki Kishi (Yokogawa Electric Corp.), Hitoshi Hara (Yokogawa Electric Corp.)

Session 3B07: Sensor and Transducer (2) — Room 7, 13:30-15:10

3B07-1	Novel Type Brillouin Optical Time-domain Reflectometry for Measuring Distributed Strain and Temper	Yahei Koyamada (Ibaraki Univ.), Yoshiyuki Sakairi (Ibaraki Univ.), Nobuaki Takeuchi (Yokogawa Electric Corp.), Shoji Adachi (Yokogawa Electric Corp.)
3B07-2	Design of Micro Flow Sensor with Optimal Detection Spacing	Tae Yong Kim (Dongseo Univ.), Wan-Young Chung (Dongseo Univ.)
3B07-3	A Design of Real-TimeWireless Sensor-based Control System	Kohei Yoshida (Tokyo Denki Univ.), Yuuki Kanemura (Tokyo Denki Univ.), Masami Iwase (Tokyo Denki Univ.), Shoshiro Hatakeyama (Tokyo Denki
3B07-4	Implementation of Indoor Location and Orientation Estimation System using Ultrasonic and Radio	Yoshiyuki Nakamura (National Institute of AIST), Ryosuke Kobayashi (Shibaura Institute of Technology), Masateru Minami (Shibaura Institute of
3B07-5	A 3D Inspection System for PCB board by Fusing Moiré Technique and Stereo Vision Algorithm	Deokhwa Hong (KAIST), Hyunki Lee (KAIST), Minyoung Kim (KohYoung Technology), Hyungsuck Cho (KAIST)

Session 3B08: OS: Safety and Cyber Security for Industrial Automation (1) — Room 8, 13:30-15:10

3B08-1	Evaluation of Operative Reliability of Safety-Related Part of Control System of Machine and Safety Level	Takabumi Fukuda (Nagaoka Univ. of Tech.), Makoto Hirayama (Tatsuno Corp.), Naoya Kasai (Yokohama Nat'l Univ.), Kazuyoshi Sekine (Yokohama Nat'l Univ.)
3B08-2	Throwing a Bridge between Risk Assessment and Functional Safety	Yoshinobu Sato (T.U.M.S.T.)
3B08-3	Functional Safety Application Using Safety PLC	Hiroo Kanamaru (Mitsubishi Electric Co.), Tsuyoshi Mogi (Mitsubishi Electric Co.), Naoki Aoyama (Mitsubishi Electric Co.)
3B08-4	Implementation of a Safety Instrumented System	Ryotaro Shishiba (Yokogawa Electric Corp.)

| 3B08-5 | The substance of IEC 61511 for process industries and the preparation of its original draft for JIS | Akio Fukada (JEMIMA / Toshiba Corp.), Tadaaki Ando (JEMIMA / Yokogawa Electric Corp.), Yoichi Takayanagi (SICE / Toshiba Corp.) |

Session 3B09: OS: Intelligent Sensor System and Its Application
Room 9, 13:30-15:10

3B09-1	Image Feature based Navigation of Nonholonomic Mobile Robots with Active Camera	Tatsuhiko Hirukawa (Mie Univ.), Satoshi Komada (Mie Univ.), Junji Hirai (Mie Univ.)
3B09-2	Vision-based Force Following Control for Mobile Robots	Hiroyuki Shimizu (Chitose Institute of Science and Technology), Naoki Oda (Chitose Institute of Science and Technology)
3B09-3	Avoidance Navigation for Mobile Robots by Using Dynamic Trajectory	Daisuke Nagahara (Kagawa Univ.), Satoru Takahashi (Kagawa Univ.)
3B09-4	A Study of Optimal Angle of Color Vector for Optical Flow Extraction	Masaaki Shibata (Seikei Univ.), Tomoki Yanagisawa (Seikei Univ.)
3B09-5	An Application to Passivity Based Force Control in Redundant Manipulator	Tsuyoshi Shibata (Keio Univ.), Toshiyuki Murakami (Keio Univ.)

Session 3B10: Modeling, System Identification and Estimation (2)
Room 10, 13:30-15:10

3B10-1	Design of Compensation Input Based on LQ Decomposition in N4SID Method	Masuhiro Nitta (Tokyo Univ. of Science)
3B10-2	Novel Object Tracking Method using the Block-based Motion Estimation	Heon Soo Shin (Dongguk Univ.), Sung Min Kim (Dongguk Univ.), Joo Woong Kim (New Power Electronics Co.), Ki Hwan Eom (Dongguk Univ.)
3B10-3	Modeling of Local Search for Track Updates in Phased Array Radar Tracking	Won-Yong Choi (Kyungpook National Univ.), Sun-Mog Hong (Kyungpook National Univ.), Seung-Min Song (Kyungpook National Univ.)
3B10-4	Estimation of the transition time of hybrid systems by using wavelet analysis	Tomoaki Kashiwao (Univ. of Tokushima), Kenji Ikeda (Univ. of Tokushima), Takao Shimomura (Univ. of Tokushima)
3B10-5	Error Analysis of Continuous-time System Identification using Laguerre Basis	Tomohiro Chimbe (Toyota Motor Corp.), Yoshito Ohta (Kyoto Univ.)

Session 3B11: Adaptive Control (3)
Room 11, 13:30-15:10

3B11-1	Indirect Adaptive Networked Control with Delay and Data Loss in Communication	Shun-ichi Akama (Univ. of Tokyo), Koji Tsumura (Univ. of Tokyo)
3B11-2	Self-Tuning Control of Time-Varying Systems based on Generalized Minimum Variance Criterion	Anna Patete (Tokyo Denki Univ.), Katsuhisa Furuta (Tokyo Denki Univ.), Masayoshi Tomizuka (Univ. of California)
3B11-3	Starting Speed Control of SI Engine Based on Online Extremum Control	Shigehiro Sugihira (Keio Univ.), Kouji Ichikawa (Keio Univ.), Hiromitu Ohmori (Keio Univ.)
3B11-4	Model Predictive Control for a Periodic Reference Signal	Hideyuki Ito (Fuji Electric Advanced Technology Co.,Ltd.), Chikashi Nakazawa (Fuji Electric Advanced Technology Co.,Ltd.), Tetsuro Matsui (Fuji Electric Advanced Technology Co.,Ltd.), Kouji Matsumoto (Fuji Electric Systems Co.,Ltd.), Hideyuki Nishida (Fuji Electric Systems Co.,Ltd.)
3B11-5	Adaptive Control Design of an Omnidirectional Automated Guided Vehicle in Consideration of Mass Change	Koichi Hidaka (Tokyo Denki Univ.)

Session 3B12: Intelligent Control (2)
Room 12, 13:30-15:10

3B12-1	Wireless Sensor Network based Control System -Trade off between Sensor Power Saving and Control Performance-	Yutaka Iino (Toshiba Corp.), Masayuki Fujita (Tokyo Institute of Technology)
3B12-2	An Intelligent Cooperative System using Fuzzy Instruction for an Operator Training System	Zhou Shenghao (Univ. of Tsukuba), Yasunobu Seiji (Univ. of Tsukuba)
3B12-3	A Robust Fuzzy Logic Adaptive PI Controller for Hydro Power Plants	Mohammad Abdolmaleki (NRI)
3B12-4	A New Fuzzy Stabilizer with Tuning Parameters for Nonlinear System	Woojong Yoo (POSTECH), Daehyun Ji (POSTECH), Sangchul Won (POSTECH)
3B12-5	Reinforcement Learning in Non-Markovian Environments using Automatic Discovery of Subgoals	Dung Tien Le (Shibaura Institute of Technology), Takashi Komeda (Shibaura Institute of Technology), Motoki Takagi (Shibaura Institute of Technology)

Session 3B14: OS: Navigation, Guidance, and Control in Aerospace Systems (2)
Room 14, 13:30-15:10

3B14-1	Minimum Time Vertical Turn of a Helicopter	Masahiko Nawa (National Defense Academy), Hiroyuki Takano (National Defense Academy), Takeshi Yamasaki (National Defense Academy), Yoriaki Baba (National Defense Academy)
3B14-2	Optimal Reconfiguration of UAVs in Formation Flight	Seiya Ueno (Yokohama Nat. Univ.), Kwon Soon Jae (Yokohama Nat. Univ.)
3B14-3	Missile Autopilot Design via Output Redefinition and Gain Optimization Technique	Byoung-Mun Min (KAIST), Deakyu Sang (KAIST), Min-Jea Tahk (KAIST), Byoung-Soo Kim (Gyeongsang Nat. Univ.)
3B14-4	Observer-based Nonlinear Model Predictive Tracking Control for Bank-to-Turn Missiles	Sunhyuk Kang (Seoul National Univ.), Jongho Shin (Seoul National Univ.), H. Jin Kim (Seoul National Univ.)

| 3B14-5 | The Optimal Orbital Control of the Dive and Ascent Earth Observing Satellite | Tianshuang Fu (Shinshu Univ.), Fumiaki Imado (Shinshu Univ.) |

Session 3B15: OS: Vehicle Routing and Scheduling
Room 15, 13:30-15:10

3B15-1	Heuristics for a Scheduling Problem of Minimizing the Number of One-Way Vehicles on Paths with Deadlines	Jun Uchida (Kyoto Institute of Technology), Yoshiyuki Karuno (Kyoto Institute of Technology), Hiroshi Nagamochi (Kyoto Univ.)
3B15-2	Autonomous Distributed Approaches for Pickup and Delivery Problems with Time Windows	Kazutoshi Sakakibara (Ritsumeikan Univ.), Hisashi Tamaki (Kobe Univ.), Ikuko Nishikawa (Ritsumeikan Univ.)
3B15-3	A Hybrid Algorithm for the Input/Output Scheduling Problem of Multi-shuttle AS/RSs	Shunji Tanaka (Kyoto Univ.)
3B15-4	Model-Approximated Dynamic Programming based on Decomposable State Transition Probabilities	Tsutomu Inamoto (Kobe Univ.), Hisashi Tamaki (Kobe Univ.), Hajime Murao (Kobe Univ.)
3B15-5	Traffic-Sensitive Controllers for Multi-Car Elevators; Design, Multi-Objective Optimization and Analysis	Kokolo Ikeda (Kyoto Univ.), Hiromichi Suzuki (Fujitec Co. Ltd), Sandor Markon (Fujitec Co. Ltd), Hajime Kita (Kyoto Univ.)

Session 3B16: Robot Design (1)
Room 16, 13:30-15:10

3B16-1	An Automatic Inspection System for Hologram with Multiple Patterns	Hyuk Joong Kwon (Chungbuk National Univ.), Tae Hyoung Park (Chungbuk National Univ.)
3B16-2	Construction Algorithm of Optical Cable Net for Minimum Cost and Maximum Reliability	Teruji Sekozawa (Kanagawa Univ.)
3B16-3	Control and Performance Evaluation of a New Redundant	Yuta Komoguchi (Technical Univ. Munich), Angelika Peer (Technical Univ. Munich), Martin Buss (Technical Univ. Munich)
3B16-4	Performance Analysis of the Network Model and Scenarios for the Search Robot Rescue System	Koichi Gyoda (NICT), Yasushi Hada (NICT), Osamu Takizawa (NICT)
3B16-5	Mobile Banking Services in the Bank Area	Mohammad Shirali-Shahreza (Sharif Univ. of Tech.), M. Hassan Shirali-Shahreza (Yazd Univ.)

Session 3C01: Genetic Algorithm and Genetic Programming
Room 1, 15:30-17:50

3C01-1	Hierarchical Association Rule Mining in Large and Dense Databases using Genetic Network Programming	Eloy Gonzales (Waseda Univ.), Kaoru Shimada (Waseda Univ.), Shingo Mabu (Waseda Univ.), Kotaro Hirasawa (Waseda Univ.), Jinglu Hu
3C01-2	Study on Encoding Schemes in Compact Genetic Algorithm for the Continuous Numerical Problems	Joon-Yong Lee (KAIST), Min-Soeng Kim (KAIST), Cheol-Taek Kim (KAIST), Ju-Jang Lee (KAIST)
3C01-3	Enhancement of Trading Rules on Stock Markets Using Genetic Network Programming with Sarsa Learning	Yan Chen (Waseda Univ.), Shingo Mabu (Waseda Univ.), Kotaro Hirasawa (Waseda Univ.), Jinglu Hu (Waseda Univ.)
3C01-4	Genetic Network Programming with Class Association Rule Acquisition Mechanisms from Incomplete Database	Kaoru Shimada (Waseda Univ.), Kotaro Hirasawa (Waseda Univ.), Jinglu Hu (Waseda Univ.)
3C01-5	A Genetic Network Programming based Method to Mine Generalized Association Rules with Ontology	Guangfei Yang (Waseda Univ.), Kaoru Shimada (Waseda Univ.), Shingo Mabu (Waseda Univ.), Kotaro Hirasawa (Waseda Univ.), Jinglu Hu (Waseda Univ.)
3C01-6	Association Rules Mining for Handling Continuous Attributes using Genetic Network Programming and Fuzzy Membership Functions	Karla Taboada (Waseda Univ.), Kaoru Shimada (Waseda Univ.), Shingo Mabu (Waseda Univ.), Kotaro Hirasawa (Waseda Univ.), Jinglu Hu (Waseda Univ.)

Session 3C02: Biological and Physiological Engineering (2)
Room 2, 15:30-17:50

3C02-1	Three elementary logics for compound control	Reiko J. Tanaka (RIKEN), Hidenori Kimura (RIKEN)
3C02-2	A Study of Index for Estimating Effect of Electroconvulsive Therapy based on Electroencephalogram	Eiko Furutani (Kyoto Univ.), Kosuke Asada (The Chugoku Electric Power Co.), Yoshihito Sawaguchi (Kisarazu National College of Tech.), Hidemichi Suga (Kyoto Univ.)
3C02-3	Habitual Exercise State Aware Automatic Running Course Provision	Katsuhiro Takata (Hosei Univ.), Jianhua Ma (Hosei Univ.)
3C02-4	Effects of Light Stimulus Frequency on Phase Characteristics of Brain Waves	Seiji Nishifuji (Yamaguchi Univ.), Kentaro Fujisaki (Yamaguchi Univ.), Shogo Tanaka (Yamaguchi Univ.)
3C02-5	New Approach for the Time Motion Analysis of Medical Staffs in a Ward by Video Image Processing	Shima Okada (Osaka Univ. Graduate School of Medicine), Yuko Ohno (Osaka Univ. Graduate School of Medicine)

Session 3C03: OS: New Trends in Reinforcement Learning
Room 3, 15:30-17:50

3C03-1	Reinforcement Learning in Multi-dimensional State-Action Space using Random Rectangular Coarse Coding and Gibbs Sampling	Hajime Kimura (Kyushu Univ.)
3C03-2	About Distributing Rewards to a Rule with Probabilistic State Transition	Wataru Uemura (Ryukoku Univ.)
3C03-3	Proposal and Evaluation of the Penalty Avoiding Rational Policy Making Algorithm with Penalty Level	Kazuteru Miyazaki (NIAD-UE), Tomimizu Kojima (Meiji Univ.), Hiroaki Kobayashi (Meiji Univ.)

3C03-4	Parallel Reinforcement Learning Systems Using Exploration Agent and Dyna-Q Algorithm	Takeshi Tateyama (Tokyo Metropolitan Univ.), Seiichi Kawata (Advanced Institute of Industrial Technology), Yoshiki Shimomura (Tokyo Metropolitan Univ.)
3C03-5	Swarm Reinforcement Learning Algorithms -Exchange of Information among Multiple Agents-	Hitoshi Iima (Kyoto Institute of Technology), Yasuaki Kuroe (Kyoto Institute of Technology)
3C03-6	Multiple Timescales PIA for Cooperative Reinforcement Learning based on MDP Model	Tomohiro Yamaguchi (Nara National College of Technology), Eri Imatani (Nara National College of Technology)
3C03-7	An Intelligent Control System Using Object Model by Real-time Learning	Eriko Kawana (Univ. of Tsukuba), Seiji Yasunobu (Univ. of Tsukuba)

Session 3C04: OS: Image Processing and Pattern Recognitions
Room 4, 15:30-17:50

3C04-1	A Design of the EEG Feature Detection and Condition Classification	Junko Murakami (Tokyo Univ. of Agri. and Tech.), Shin-ichi Ito (Tokyo Univ. of Agri. and Tech.), Yasue Mitsukura (Tokyo Univ. of Agri. and Tech.), Jianting Cao (Saitama Institute of Technology), Minoru Fukumi (Univ. of
3C04-2	A Design of the Preference Acquisition Detection System	Eriko Yokomatsu (Tokyo Univ. of Agri. and Tech.), Shin-ichi Ito (Tokyo Univ. of Agri. and Tech.), Yasue Mitsukura (Tokyo Univ. of Agri. and Tech.), Jianting Cao (Saitama Inst. of Tech.), Minoru Fukumi (Univ. of Tokushima)
3C04-3	Apparent Age Estimation System based on Age Perception	Hironobu Fukai (TUAT), Hironori Takimoto (Sasebo National College of Tech.), Yasue Mitsukura (TUAT), Minoru Fukumi (Univ. of Tokushima)
3C04-4	Appearance-age feature extraction from facial image based on age perception	Hironori Takimoto (Sasebo National College of Technology), Tsubasa Kuwano (Sasebo National College of Technology), Yasue Mitsukura (Tokyo Univ. of Agri. and Tech.), Hironobu Fukai (Tokyo Univ. of Agri. and Tech.),
3C04-5	Incremental Learning Method in Wrist EMG Recognition System	Tadahiro Oyama (Univ. of Tokushima), Yuji Matsumura (Univ. of Tokushima), Stephen Karungaru (Univ. of Tokushima), Satoru Tsuge (Univ. of Tokushima), Yasue Mitsukura (TUAT), Minoru Fukumi (Univ. of
3C04-6	The EEG Feature Extraction Method of Listening to Music Using the Genetic Algorithms and the Latency Structure Model	Shin-ichi Ito (TUAT), Yasue Mitsukura (TUAT), Hiroko Nakamura Miyamura (TUAT), Takafumi Saito (TUAT), Minoru Fukumi (Univ. of Tokushima)
3C04-7	A Proposal of Adaptive Graininess Suppression Method	Seiki Yoshimori (Nippon Bunri Univ.), Yasue Mitsukura (Tokyo Univ. of Agri. and Tech.), Minoru Fukumi (Univ. of Tokushima), Norio Akamatsu (Univ. of Tokushima)

Session 3C05: Image processing (2)
Room 5, 15:30-17:50

3C05-1	Lossless Image Coding Based on Minimum Mean Absolute Error Predictors	Yoshihiko Hashidume (Okayama Univ.), Yoshitaka Morikawa (Okayama Univ.)
3C05-2	Robust Target Detection and Tracking Using Particle Filter and Parametric Eigenspace Method	Masayuki Obata (YASKAWA INFORMATION SYSTEMS Corp.), Takeshi Nishida (Kyushu Institute of Technology), Hidekazu Miyagawa (YASKAWA INFORMATION SYSTEMS Corp.), Fujio Ohkawa (Kyushu Institute of
3C05-3	Iterative Extraction of Yarn Positional Information from Three-dimensional Image of Textile Fabric	Toshihiro Shinohara (Kinki Univ.)
3C05-4	Parallel Processing of Figure-Ground Separation in Random Dot Kinematogram with Optical Flow Discretization	Satoshi Ito (Gifu Univ.), Minoru Sasaki (Gifu Univ.)
3C05-5	Luminance Effects on Visual Perception of Self-rotation for Development of Driving Simulator	Yu Yinghua (Kagawa Univ.), Wu Jinglong (Kagawa Univ.)

Session 3C06: OS: FLUCOME-J SICE 2007
Room 6, 15:30-17:50

3C06-1	Development of Tendon-Driven Assistance Manipulator System by Air Pressure Control	Shinichiro Nakamura (Meiji Univ.), Osamu Oyama (Meiji Univ.), Toshihiro Yoshimitsu (Kanagawa Insuitute of Technology)
3C06-2	A Power-Assisted Chair with Motion-Sensing Control	Yuki Akiyama (Yokohama National Univ.), Kazushi Sanada (Yokohama National Univ.)
3C06-3	A Study on Yow Rate Control of Hydraulic-Power-Steering Heavy Duty Vehicles	Bingzhao Gao (Yokohama National Univ.), Kazushi Sanada (Yokohama National Univ.), Kenichi Furihata (ISUZU)
3C06-4	Evaluation of a Master Slave System with Force Sensing	Kotaro Tadano (Tokyo Institute of Tech.), Kenji Kawashima (Tokyo Institute of Tech.), Toshiharu Kagawa (Tokyo Institute of Tech.)

Session 3C07: Signal Processing (4)
Room 7, 15:30-17:50

3C07-1	System Design of Durian Maturity Determination using Microstrip Patch Antennas	Navapadol Kittiamornkul (King Mongkut Univ. of Technology Thonburi), Kamon Jiraseriamornkul (King Mongkut Univ. of Technology Thonburi), Kosin Chamnongthai (King Mongkut Univ. of Technology Thonburi), Monai Krairiksh (King Mongkut Institute of Technology Ladkrabang), Kohji Higuchi (Univ. of Electro-Communications)
3C07-2	Velocity Distribution Measurement with Oculomotor System	Hideaki Takahashi (Kumamoto Univ.), Teruo Yamaguchi (Kumamoto Univ.), Hiroshi Harada (Kumamoto Univ.)
3C07-3	Time-to-Contact Estimation on the Scaled-Matching of Power Spectra	Shinnichiro Izumi (Kumamoto Univ.), Teruo Yamaguchi (Kumamoto Univ.)
3C07-4	Pseudo Electrodes Driven Patterns for Electrical Impedance Tomography	Fang-Ming Yu (St. John's Univ.), Cheng-Ning Huang (National Central Univ.), Feng-Ming Hsu (National Central Univ.), Hung-Yuan Chung (National Central Univ.)
3C07-5	An Electromagnetic Coupling Device for High Speed Running Radar for Non-Destructive Inspection	Shogo Tanaka (Yamaguchi Univ.)

Session 3C08:   OS: Safety and Cyber Security   for Industrial Automation (2)
Room 8, 15:30-17:50

3C08-1	Trend of International Safety Standards	Kotaro Amanuma (YAMATAKE)
3C08-2	EMC Consideration of Safety System	Hisashi Saitou (Yokogawa Electric Corp.), Kouji Demachi (Yokogawa Electric Corp.)
3C08-3	Sustainable Cyber Security for Utility Facilities Control System based on Defense-in-Depth Concept	Masatoshi Takano (Toyota Motor Corp.)
3C08-4	Security Management of Factory Automation	Mitsuo Harada (SiemensK.K.)
3C08-5	Security Measures of Manufacture & Control System	Masami Hasegawa (JEMIMA), Toshiki Ogawa (JEMIMA)

Session 3C09: OS: Networked Sensing Systems
Room 9, 15:30-17:50

3C09-1	Kalman Filtering for Improving Car Positioning with Measurements of Relative Distance	Hidekata Hontani (Nagoya Institute of Technology), Yuya Higuchi (Nagoya Institute of Technology)
3C09-2	An Indoor Position Estimation Method by Maximum Likelihood Algorithm using RSS	Isao Yamada (Yamatake Corp.), Tomoaki Ohtsuki (Keio Univ.), Tetsuo Hisanaga (Yamatake Corp.), Li Zheng (Yamatake Corp.)
3C09-3	Calibration Performance in Merging Measurement Graph	Hidekata Hontani (Nagoya Instituite of Technology), Kenichi Ito (Nagoya Institute of Technology)
3C09-4	A Proposal of Gyro Sensor using Asymmetrical Comb-drive Actuator	Hideta Oiso (Kagawa Univ.), Souichirou Kariya (Kagawa Univ.), Gen Hashiguchi (Kagawa Univ.)
3C09-5	Time Synchronized Wireless Sensor Network for Vibration Measurement	Yutaka Uchimura (Shibaura Inst. of Tech.), Tadashi Nasu (Kajima Corp.), Motoichi Takahashi (Kajima Corp.)

Session 3C10: Modeling, System Identification and Estimation(3)
Room 10, 15:30-17:50

3C10-1	Parameter Estimation of PEMFC by On-Line Tracking Simulator	Makoto Nakaya (Yokogawa Electric Corp.), Kyojiro Kawaguchi (Yokogawa Electric Corp.), Yasushi Onoe (Yokogawa Electric Corp.), Kenji Watanabe (Yokogawa Electric Corp.), Tetsuya Ootani (Yokogawa Electric Corp.)
3C10-2	Modelling and Optimisation of a Glass Feeder Considered as a Distributed Parameter System	Sebastian Henkel (Stuttgart Univ.), Alexander Kharitonov (Stuttgart Univ.), Oliver Sawodny (Stuttgart Univ.)
3C10-3	Floquet Factorization Algorithms in Linear Continuous-time Periodic Systems	Jun Zhou (Kyoto Univ.)
3C10-4	Pole Assignment Method Based on Numerical Computation with Guaranteed Accuracy	Kentaro Yano (Kyushu Inst. of Tech.), Masanobau Koga (Kyushu Inst. of Tech.)
3C10-5	Distributed Estimation Fusion with Global Track Feedback Using a Modified LOLIMOT Algorithm	Javad Rezaie (Univ. of Tehran), Behzad Moshiri (Univ. of Tehran), Babak N Araabi (Univ. of Tehran)

Session 3C11: Mechanical Systems Control (4)
Room 11, 15:30-17:50

3C11-1	Twisting Wire Actuated Motion Platform	Tsai-Cheng Li (St. John's Univ.), Huan-Wen Wu (Nan Jeon Institute of Technology), Herchang Ay (National Kaohsiung Univ. of Applied Sciences)
3C11-2	Torque ripples and EMI Noise Minimization in PMSM Using Hybrid Filter	Ali Ahmed Adam (Yildiz Technical Univ.), Kayhan Gulez (Yildiz Technical Univ.)
3C11-3	In-Process Control of Cutting Depth during Turning	Matko Dijkman (Univ. of Bremen), Dirk Stobener (Univ. of Bremen), Sebastian Allers (Univ. of Bremen), Bernd Kuhfuss (Univ. of Bremen), Gert Goch (Univ of Bremen)
3C11-4	A Study of Bilateral Teleoperation with Time Delay using Command	Yasunori Kawai (Ishikawa National College of Technology), Masayuki Fujita (Tokyo Institute of Technology)
3C11-5	General Forms of Controller Realizing Negative Stiffness	Takeshi Mizuno (Saitama Univ.), Takehiko Furushima (Saitama Univ.), Yuji Ishino (Saitama Univ.), Masaya Takasaki (Saitama Univ.)
3C11-6	Image-based Visual PID Control of a Micro Helicopter using a Stationary Camera	Kei Watanabe (Tohoku Univ.), Yuta Yoshihata (Tohoku Univ.), Yasushi Iwatani (Tohoku Univ.), Koichi Hashimoto (Tohoku Univ.)

Session 3C14: OS: Navigation, Guidance, and Control in Aerospace Systems (3)
Room 14, 15:30-17:50

3C14-1	Modeling and Motion Analysis for a Powered Paraglider(PPG)	Masahito Watanabe (National Defense Academy), Yoshimasa Ochi (National Defense Academy)
3C14-2	Flight Evaluation of GPS Precise Point Positioning for Helicopter Navigation	Yutaka Shimizu (National Defense Acad.), Masaaki Murata (National Defense Acad.)
3C14-3	An In-flight Alignment Calibration Scheme for Astronomy Telescope	Maeda Ken (NEC Corp.)
3C14-4	Attitude Determination of Rotating Spacecraft by Magnetic Sensors	Shoji Yoshikawa (Mitsubishi Electric Co.), Takehiro Nishiyama (Mitsubishi Electric Co.)

3C14-5	Evaluation of Differential VLBI Phase Delay Observable for Spacecraft Navigation --Delta VLBI observation of HAYABUSA at touchdown to Itokawa --	Mamoru Sekido (NICT), Ryuichi Ichikawa (NICT), Makoto Yoshikawa (JAXA/ISAS), Hiroshi Takeuchi (JAXA/ISAS), Takaji Kato (JAXA/ISAS), Nanako Mochizuki (JAXA/ISAS), Yasuhiro Murata (JAXA/ISAS), Tsutomu Ichikawa (JAXA/ISAS)

Session 3C15: OS: Supporting Technology for High Quality of Life
Room 15, 15:30-17:50

3C15-1	Comfortable Life Space for Elderly- Using Supporting Systems based on Technology -	Hiroshi Hashimoto (Tokyo Univ. of Tech.), Toshio Matsunaga (Tokyo Univ. of Tech.), Toshinori Tsuboi (Tokyo Univ. of Tech.), Yasuhiro Ohyama (Tokyo Univ. of Tech.), Jin Hua Sha (Tokyo Univ. of Tech.), Naoki Amano (Tokyo Univ. of Tech.), Sho Yokota (Tokyo Univ. of Tech.), Hiroyuki Kobayashi (Osaka Institute of Tech.)
3C15-2	A Multi-Agent Evacuation Simulator to Design Safe Cities for High Quality of Life with Computer Clustering	Hiroyuki Kobayashi (Osaka Inst. of Tech.), Yutaka Ishimoto (Osaka Inst. of Tech.), Masaki Fujioka (Nagoya Sangyo Univ.), Kenichi Ishibashi (Nagoya Sangyo Univ.)
3C15-3	Vision-Based Human Behavior Recognition by a Mobile Robot	Akira Ohtani (Tokyo Univ. of Technology), Naoki Amano (Tokyo Univ. of Technology)
3C15-4	Investigation of Human Motion under Conditions with Sensory Feedbacks Restricted in Yo-yo Control	Akinori Sasaki (Tokyo Univ. of Technology), Hiroshi Hashimoto (Tokyo Univ. of Technology), Sho Yokota (Tokyo Univ. of Technology), Yasuhiro Ohyama (Tokyo Univ. of Technology)
3C15-5	Spectroscopy Optical Coherence Tomography of Biomedical Tissue	Takaki Harada (Kagawa Univ?), Kazuya Yamamoto (Kagawa Univ?), Masahiro Kondo (Kagawa Uni?.), Kazuhiro Gesho (Kagawa Univ.), Ichirou Ishimaru (Kagawa Univ.)
3C15-6	Steady Standing Assistance using Active Walker Function	Daisuke Chugo (Univ. of Electro-Communications), Takeya Kitamura (Univ. of Electro-Communications), Songmin Jia (Univ. of Electro-Communications), Kunikatsu Takase (Univ. of Electro-Communications)
3C15-7	Supporting Technologies for Weak-Eyesight Persons - Automatic Color Conversion and Training Vision –	Sho Yokota (Tokyo Univ. of Tech.), Hiroshi Hashimoto (Tokyo Univ. of Tech.), Akinori Sasaki (Tokyo Univ. of Tech.), Yasuhiro Ohyama (Tokyo

Session 3C16: Robot Design (2)
Room 16, 15:30-17:50

3C16-1	Liquid Container Transfer Control by Hybrid Shape Approach for 6DOF Manipulator	Yoshifumi Kuriyama (Gifu Univ.), Yasushi Yasuda (Gifu Univ.), Ken'ichi Yano (Gifu Univ.), Masafumi Hamaguchi (Shimane Univ.)
3C16-2	Spatial Memory for Collaboration Support System in Intelligent Space -- User Identification Based on Spatial Memory --	Mihoko Niitsuma (Univ. of Tokyo), Hideki Hashimoto (Univ. of Tokyo)
3C16-3	The Contribution of Pinna to the Discriminate the Vertical Angle	Tianyi Yan (Kagawa Univ.), Jinglong Wu (Kagawa Univ.)
3C16-4	A Study of Classification of the Level of Sleepiness for the Drowsy Driving Prevention	Byung-Chan Chang (Kyungpook National Univ.), Jung-Eun Lim (Kyungpook National Univ.), Hae-Jin Kim (Kyungpook National Univ.), Bo-Hyeok Seo (Kyungpook National Univ.)
3C16-5	Kinematics Simulation by Using ODE and MATLAB	Yuhi Awa (Hosei Univ.), Kazuyuki Kobayashi (Hosei Univ.)