

TA01 : Fault Diagnosis

Development of Fault Monitoring Technique for Agitator Driving System	1
<i>Park Gee-yong, Park Byung-suk, Yoon Ji-sup, Hong Dong-hee and Jin Jae-hyun (KAERI, KOREA)</i>	
Efficient FFT-Based Fault Detection Using Mean Absolute Difference	7
<i>Jeong Chun-Ho, Song Myung-Hyun, Kang Eui-Sung (Sunchon Nat'l Univ., KOREA) and Kim Kyung-min (Yosu Nat'l Univ., KOREA)</i>	
Fault Detection and Isolation Performance Analysis of Modified SPRT with respect to Inertial Sensor Errors	11
<i>Kim Jeong-Yong, Yang Cheol-Kwan and Shim Duk-Sun (Chungang Univ., KOREA)</i>	
Simultaneous Faults Detection and Isolation Using Null Space Components of Faults for INS Sensor Redundancy	16
<i>Yang Cheol-Kwan and Shim Duk-Sun (Chungang Univ., KOREA)</i>	
Modular Backpropagation Network to Diagnosing Plasma Processing Equipment	22
<i>Kim Byungwhan (Sejong Univ., KOREA) and Kim Byungwhan (Sejong Univ., KOREA)</i>	
Feedback scope for fault detection and localization	27
<i>Jung Hunsang and Park Youngjin (KAIST, KOREA)</i>	

TA02 : Aerospace I

Measurement Delay Error Compensation for GPS/INS Integrated Systems	32
<i>Lim You-chol and Lyou Joon (Chungnam Nat'l Univ., KOREA)</i>	
Development of the Algorithm to improve the performance of GPS for a Navigation System	38
<i>Rhee Jaehoon, Jeon Changwan (Soonchunghyang Univ., KOREA), Hong Wonchul (Naniware co., KOREA) and Kim Hyunsoo (Konkuk Univ., KOREA)</i>	
Extending GPS Service Indoors by use of Synchronized Pseudolites	44
<i>Yun Doohee and Kee Changdon (Seoul Nat'l Univ., KOREA)</i>	
GPS/DR Integration for Mobile Robot Navigation	50
<i>Yoon Seonil, Yim Kook Hyun (LG Co., Ltd, KOREA), Kim Hyun Soo and Jee Gyu-In (Konkuk Univ., KOREA)</i>	
Derivation of the SGP4 Drag Term from the Two Osculating Orbit State for the Low Earth Orbit Satellite	55
<i>Lee Byoung-Sun and Park Jae-Woo (ETRI, KOREA)</i>	
DSP Architecture for Weak Signal Acquisition in Assisted GPS	61
<i>CHO DEUK JAE, CHOI IL HEUNG, MOON SUNG WOOK, LEE SANG JEONG (Chungnam Nat'l Univ., KOREA) and PARK SANG HYUN (NAVICOM CO. Ltd, KOREA)</i>	

TA03 : Robot Vision I

Moving object detection in image sequences from a mobile robot	67
---	----

<i>Lee Chang-kyu and Kuc Tae-Yong (Sungkyunkwan Univ., KOREA)</i>	
A Study of Detection and Recognition of the Land Mark for Self-Localization of Autonomous Robot in the Robot Soccer Environment (ROBOSOT)	73
<i>Heo Yoon and Choi Tae Ho (Kyungpook Nat'l Univ., KOREA)</i>	
3D multiple objects recognition using a disparity image	78
<i>Park Hongpyo, Choi Seungjoon, Kim Sungjin and Won Sangchol (POSTECH, KOREA)</i>	
A New Flexible Camera Calibration Method using the Projection Fluctuation Ratio of Different Line Widths	82
<i>Mun Seong Ryong, Jang HongSeok, Jeong JunIk, Rho DoHwan and Lee HoSun (Chonbuk Nat'l Univ., KOREA)</i>	
Indoor Environment Modeling with Stereo Camera for Mobile Robot Navigation	87
<i>Park Sung-Kee, Choi Jong-Suk, Kim Munsang and Lee Chong-won (KIST, KOREA)</i>	
Obstacle Avoidance and Lane Recognition for the Directional Control of Unmanned Vehicle.	92
<i>Kim Chang Man, Moon Hee Chang, Kim Sang Gyum and Kim Jung Ha (Kookmin Univ., KOREA)</i>	

TA04 : Intelligent System I

Sliding Mode Control with Nonlinear Interpolation in Variable Boundary Layer	96
<i>kim yookyung (ADD, KOREA) and Jeon gijoon (Kyungpook Nat'l Univ., KOREA)</i>	
The Stabilization of an Affine TS Fuzzy System by using an ILMF method	101
<i>Rhee Bongjae and Won Sangchul (POSTECH, KOREA)</i>	
Labeling Q-learning with SOM	105
<i>Lee Haeyeon, Abe Kenichi (Tohoku Univ., JAPAN) and Kamaya Hiroyuki (Hachinohe Nat'l College, JAPAN)</i>	
Intrusion Detection Algorithm based on Artificial Immune System	110
<i>Yang Jae-Won, Sim Kwee-Bo, Lee Dong-Wook (Chungang Univ., KOREA) and Seo Dong-Il (ETRI, KOREA)</i>	
Stability Analysis and Design of a Fuzzy-Model-Based Controller in Switched Systems	115
<i>Kim Joo Won, Park Jin Bae (Yonsei Univ., KOREA) and Joo Young Hoon (Kunsan Nat'l Univ., KOREA)</i>	
Design of PWM-Based Fuzzy Controller for Nonlinear Systems	120
<i>Cha Dai Bum, Cho Kwang Lae, Lee Yeun Woo, Joo Young Hoon (Kunsan Nat'l Univ., KOREA) and Park Jin Bae (Yonsei Univ., KOREA)</i>	

TA05 : Robot Application I

Artificial Muscle Actuator for Robotic Applications	126
<i>Choi Hyoukryeol, Jung Kwangmok, Ryew Sungmoo, Kim Hunmo, Jeon Jaewook and Nam Jaedo (Sungkyunkwan Univ., KOREA)</i>	
A Skeletal Framework Artificial Hand Actuated by Micro Pneumatic Artificial Muscles	132
<i>LEE YoungKwun, OH YeonTaek and SUNG HakKyung (Samsung Electronics Co. Ltd., KOREA)</i>	
Implementation of Human Motion Following Robot through Wireless Communication Interface	136

<i>jung seul and jeon Poongwoo (Chungnam Nat'l Univ., KOREA)</i>	
Development of a FPGA-based One-chip Position Controller with PCI Interface	142
<i>Han Sang Gyu and Jeon Jae Wook (Sungkyunkwan Univ., KOREA)</i>	
Development of Localization System for Mobile Robot Using Radio Frequency and Ultrasound	148
<i>Kim Young-gie, Kim Jin-oh (Kwangwoon Univ., KOREA), Kim Munsang and Choi Jong-suk (KAIST, KOREA)</i>	
Impact Analysis for Kicking Motion of a Humanoid Robot	153
<i>choi jae yeon, Kim Seong Hoon, So Byung Rok, Yi Byung-Ju (Hanyang Univ., KOREA) and Kim Wheekuk (Korea Univ., KOREA)</i>	

TA06 : Mobile Robot

Global Positioning System for Mobile Robot Navigation in an Indoor Environment	158
<i>Park Soo Min, Lee Bong Ki, Jin Tae Seok and Lee Jang Myung (Pusan Nat'l Univ., KOREA)</i>	
Collision-Free Motion Coordination of Multiple Mobile Robots Using Relative Distance	164
<i>Ko Nak Yong, Seo Dong Jin and Kim Young-Dong (Chosun Univ., KOREA)</i>	
Sensor-Based Motion Planning for Mobile Robots	170
<i>Choi Jong-Suk and Lee Chong-won (KAIST, KOREA)</i>	
Feature Extraction for Robot Map Using Neural Network	175
<i>Kim Chang-Hyun, Oh Chang-Mok and Lee Ju-Jang (KAIST, KOREA)</i>	
Development of compact wireless communication module for auto-recognition wearable I/O device by using USB interface.	179
<i>Park Kwanghyun and Jeon Jae Wook (Sungkyunkwan Univ., KOREA)</i>	
Motion Control of an Omnidirectional Mobile Robot with Steerable Omnidirectional Wheels	185
<i>Byun Kyung-Seok and Song Jae-Bok (Korea Univ., KOREA)</i>	

TA07 : Robot Navigation

GPS/DR based train vehicles tracking in steel works	191
<i>Park chel no and Jee gyuin (POSCO, KOREA)</i>	
A New Technique To Escape Local Minimum In Artificial Potential Field Based Path Planning	196
<i>Park Min Gyu and Lee Min Cheol (Pusan Nat'l Univ., KOREA)</i>	
Global Topological Map Building Using Local Grid Maps	202
<i>Choi Chang-Hyuk, Song Jae-Bok (Korea Univ., KOREA), Chung Woojin and Kim Munsang (KIST, KOREA)</i>	
A Fast Map-matching Method using a Laser Range Finder	208
<i>Moon Jung-Hyun, You Bum-Jae, Oh Sang-Rok (KIST, KOREA) and Kim Hagbae (Yonsei Univ., KOREA)</i>	
Design of DSP filter for the integration the driving simulator system with unmanned vehicle	214

TP01 : Invited Session I (MEMS)

- Mechanically Modulated Actuators and Branched Finger Detectors for Nano-Precision MEMS Applications** 218
Cho Young-Ho, Lee Won Chul and Han Ki Ho (KAIST, KOREA)
- Adaptive Control for the Conventional Mode of Operation of MEMS Gyroscopes** 224
Park Sungsu and Horowitz Roberto (UC Berkeley, USA)
- Feedback Controller Design for a In-plane Gimbaled Micro Gyroscope Using H-infinity and State Weighted Model Reduction Techniques** 228
Song Jin Woo, Lee Jang Gyu (Seoul Nat'l Univ., KOREA), Kang Taesam (Konkuk Univ., KOREA), Kim Yong Kweon (Seoul Nat'l Univ., KOREA), Chung Hakyoung (MicroInfinity Co. Ltd., KOREA) and Chang Hyun Kee (Intellimicrons Co. Ltd., KOREA)
- Feedback Loop Design for Micro Gyroscope** 234
Sung Woon Tahk, Song Jin Woo, Lee Jang Gyu (Seoul Nat'l Univ., KOREA) and Kang Taesam (Konkuk Univ., KOREA)

TP02 : Invited Session II(Aerospace II)

- Redesign of the Adaptive Flight Control Law for the ALFLEX Flight Control System** 239
Shimada Yuzo and Uchiyama Kenji (Nihon Univ., JAPAN)
- Design of Reconfigurable Flight Controller using Sliding Mode Control - Actuator Fault** 245
Shin dong ho and Kim Youdan (Seoul Nat'l Univ., KOREA)
- UAV Autopilot Design under External Disturbances** 249
Eun Youn-Ju, Bang Hyochoong and Tahk Min-Jea (KAIST, KOREA)

TP03 : Robot Vision II

- Robust Landmark Matching for Self-localization of Robots from the Multiple Candidates** 255
Kang Hyun-Deok and Jo Kang-Hyun (Ulsan Univ., KOREA)
- stereo vision for monochromatic surface recognition based on competitive and cooperative neural network** 259
Hua Xijun, Tang Yibing, Yokomichi Masahiro, Kitazoe Tetsuro and Kono Michio (Miyazaki Univ., JAPAN)
- Efficient Tracking of a Moving Object Using Optimal Representative Blocks** 264
Kim Wan-Cheol, Hwang Cheol-Ho, Choi Su-Hyeon and Lee Jang-Myung (Pusan Nat'l Univ., KOREA)
- New Method of Visual Servoing using an Uncalibrated Camera and a Calibrated Robot** 270

Morita Masahiko, Shigeru Uchikado (TokyoDenki Univ., JAPAN) and Yasuhiro Osa (Tech. Kobe City College, japan)

Feature Extraction for Vision Based Micromanipulation 276

Jang Min Soo, Lee Seok Joo and Park Gwi Tae (Korea Univ., KOREA)

Communication Sequence Determination for Lead Vehicle Control in a Platoon via Remote Control Station 282

Choi Jae Weon and Fang Tae Hyun (Pusan Nat'l Univ., KOREA)

TP04 : Intelligent System II

A Model to Estimate Population by Sex, Age and District Based on Fuzzy Theory 286

PAK Pyong Sik and KIM Gwan (Osaka Univ., JAPAN)

New learning algorithm to solve the inverse optimization problems 290

Aoyama Tomoo (Miyazaki Univ., JAPAN) and Aoyama Tomoo (Miyazaki Univ., JAPAN)

Interactive Adaptation of Fuzzy Neural Networks in Voice-Controlled Systems. 296

Pulasinghe Koliya, Watanabe Keigo, Izumi Kiyotaka and Kiguchi Kazuo (Saga Univ., JAPAN)

OCR Application By a FPGA Programming AND/OR Neural Network 302

Qianyi Wang, Ryosuke Suematsu, Ryosuke Shimizu and Tomoo Aoyama (Miyazaki Univ., JAPAN)

Identification of Operated Protective Device in Distribution Power System using Wavelet Transform and ANN 307

Yim Wha Young (Kwangwoon Univ., KOREA) and Yim Wha Young (Kwangwoon Univ., KOREA)

The Design of Self-Organizing Map Using Pseudo Gaussian Function Network 313

Kim Byung Man and Cho Hyung Suck (KAIST, KOREA)

TP05 : Robot Application II

Position and Force Control of a Sensorized Microgripper 319

Kim Sang Min, Kim Deok-Ho, Kim Kyunghwan, Kim Byungkyu (KIST, KOREA), Chung Chung Choo (Hanyang Univ., KOREA) and Shim Jaehong (Polytechnic Univ., KOREA)

Development of a Distributed Motion Controller Using CAN 323

Cho Myoung Chol and Jeon Jae Wook (Sungkyunkwan Univ., KOREA)

Development of A High Performance Motion Controller 329

Cho Jung Uk and Jeon Jae Wook (Sungkyunkwan Univ., KOREA)

Active Control Method of Automotive Suspension System 335

Jeong Seonghark, Kim Jungha and Moon Donghee (Kookmin Univ., KOREA)

The System Design of a Miniaturized Unmanned Vehicle 339

Moon Hee Chang, Kim Chang Man, Kim Sang Gyum and Kim Jung Ha (Kookmin Univ., KOREA)

Robot Technologies in Response to Accidents in Nuclear Power Plants 343

Kim Seungho, Jung Kyung Min, Kim Chang-Hoi and Seo Yong-Chil (KAERI, KOREA)

TP06 : Linear Control

- Guaranteed cost control for singular systems with time delays using LMI** 349
Kim Jong Hae (Sunmoon Univ., KOREA) and Kim Jong Hae (Sunmoon Univ., KOREA)
- Output-feedback H_∞ Control of Discrete-time LPV Systems** 354
Choi Doo Jin and Park PooGyeon (POSTECH, KOREA)
- Eigenstructure-Based Robust Stability Criterion for Linear Time-Varying Systems** 360
Lee Ho Chul and Choi Jae Weon (Pusan Nat'l Univ., KOREA)
- A Study on the Effects of Added Zeros to the System with a Monotone Nondecreasing Step Response.** 365
Kwon Byung-Moon (KARI, KOREA), Lee Hyun-Seok and Kwon Oh-Kyu (Inha Univ., KOREA)
- S-Eigenvalue Concept for Linear Continuous-Time Systems with Probabilistic Uncertainties** 370
Seo Young Bong and Choi Jae Weon (Pusan Nat'l Univ., KOREA)
- Derivative State Constrained optimal H₂ Control for Quadruple-tank process** 374
Numsomran Arjin, Trisuwannawat Thanit and Tirasesth Kitti (KMITL, THAILAND)

TP07 : Identification I

- Fuzzy Supervisory Sliding Mode Controller/Observer Based Control of an Inverted Cart Pendulum** 379
Kim SeungJin and Hong Suk-Kyo (Ajou Univ., KOREA)
- Discrete-time robust Kalman filter design in indefinite inner product space** 385
Lee Tae Hoon, Park Jin Bae (Yonsei Univ., KOREA), Yoon Tae Sung (Changwon Nat'l Univ., KOREA) and Ra Won-Sang (ADD, KOREA)
- Speed and Flux Estimation for an Induction Motor** 390
Lee Gil-Su, Lee Dong-Hyun, Yoon Tae-Woong (Korea Univ., KOREA), Lee Kyo-Beum, Choy Ick (KIST, KOREA) and Song Joong-Ho (Tech. Seoul Nat'l Univ., KOREA)
- Dynamic Electrical Impedance Tomography with IMM Scheme** 395
Kang Suk In, Kim Bong Seok, Kim Min Chan, Kim Sin, Lee Yoon Joon and Kim Kyung Youn (Cheju Nat'l Univ., KOREA)
- Quasi-Deadbeat Minimax Estimation for Deterministic Generic Linear Models** 401
Lee Kwan Ho, Han Soo Hee and Kwon Wook Hyun (Seoul Nat'l Univ., KOREA)
- A Novel Parametric Identification Method Using a Dynamic Encoding Algorithm for Searches (DEAS)** 406
Kim Jong-Wook and Kim Sang Woo (POSTECH, KOREA)

TE01 : Process System

- A Design of Two-mode Controller Using PC-based Lookup Table Technique and PID Control Algorithm** 412

<i>Julsereewong Prasit and Sangjeen Naowarat (KMITL, THAILAND)</i>	
Backpropagation Classification of Statistically	418
<i>Kim Sungmo and Kim Byungwhan (Sejong Univ., KOREA)</i>	
Model Predictive Control of First Order Hyperbolic PDE Systems	423
<i>Choi Jinhoon and Lee Kwang Soon (Sogang Univ., KOREA)</i>	
A Case study of an optimal design with structured sampling and simulation	429
<i>Park Hongjoon and Jun Youngcook (Sunchon Nat'l Univ., KOREA)</i>	
Wavelet Characterization of Profile Uniformity Using Neural Network	433
<i>Choi Won Sun, Lim Myo Teak (Korea Univ., KOREA) and Kim Byungwhan Kim (Sejong Univ., KOREA)</i>	
INDIRECT FUZZY CONTROLLER FOR LEVEL PROCESSES	438
<i>Lertudomsuk Surakit, Benjanarasuth Taworn, Lertthirasuntorn Sawang, Ngamwiwit Jongkol (KMITL, THAILAND) and Komine Noriyuki (Tokai Univ., JAPAN)</i>	

TE02 : Aerospace III

Trajectory Optimization for An Aircraft with Genetic algorithm	444
<i>Miki Shigeki, Takano Hiroyuki and Baba Yoriaki (Nat'l Defense Academy, JAPAN)</i>	
Trade-off Study on the Performance of GPS/INS for Aviation Navigation	448
<i>Yoo Changsun, Ahn Ieeki (KARI, KOREA) and Lee Sangjeong (Chungnam Nat'l Univ., KOREA)</i>	
Trajectory and Attitude Control for a Lunar-Lander Using a Reference Model	453
<i>Abe Akio, Shimada Yuzo and Uchiyama Kenji (Nihon Univ., JAPAN)</i>	
Attitude Control of an Electrically Powered UAV Helicopter	459
<i>Kim Jong-Kwon, Cho Kyeum-Rae (Pusan Nat'l Univ., KOREA), Park Soo-Hong (Dongseo Univ., KOREA) and Shin Ji-Hwan (KAI Ltd., KOREA)</i>	
Real-Time Simulation Algorithm for an Aircraft and a Missile	470
<i>Ueda Yukio, Baba Yoriaki and Takano Hiroyuki (Nat'l Defense Academy, JAPAN)</i>	
Ground Test & Evaluation of an Unmanned Aerial Vehicle	476
<i>Kim Jinhyoung, Suk Jinyoung (Chungnam Nat'l Univ., KOREA) and Kim Ilsik (Uconsystem Ltd., KOREA)</i>	

TE03 : Adaptive and Robust

Strengthening Robustness within the Boundary Layer by Incorporating Adaptive Control	481
<i>Park Gee-yong, Yoon Ji-sup, Park Byung-suk, Hong Dong-hee and Kim Young-hwan (KAERI, KOREA)</i>	
Integrated sliding mode and adaptive control of nonlinear systems with guaranteed tracking performances	487
<i>Li Ji-Hong (KRISO, KOREA) and Lee Sang-Jeong (Chungnam Nat'l Univ., KOREA)</i>	
State Feedback Control by Adaptive Observer for Plants with Unknown Disturbance	492
<i>Araki Kazutoshi, Michino Ryuji, Mizumoto Ikuro, Iwai Zenta (Kumamoto Univ., JAPAN) and Makino Tomoya (FUJITSU LIMITED)</i>	
Active Vibration Control based on Simple Adaptive Control	497

<i>Araki Kazutoshi, Kohzawa Ryuichi, Mizumoto Ikuro, Kumon Makoto and Iwai Zenta (Kumamoto Univ., JAPAN)</i>	
Position Control of Overhead Crane System by Neural Network Based Self-Tuning Control	502
<i>Burananda Arnut, Ngamwiwit Jongkol, Panaudomsup Sumit, Benjanarasuth Taworn (KMITL, THAILAND) and Komine Noriyuki (Tokai Univ., JAPAN)</i>	
Control Methodology of Inverse Response Process	507
<i>Pratch Tontirittiphol, Kiattisak Kumwachara and Mongkol Janchookiat (KMITL, THAILAND)</i>	

TE04 : Humanoid Robot Interaction

Human Robot Interaction via Intelligent Space	512
<i>Hashimoto Hideki, Lee Joo-Ho and Morioka Kazuyuki (Univ. of Tokyo, JAPAN)</i>	
Human Robot Interaction via Evolutionary Network Intelligence	517
<i>Yamaguchi Toru (Tokyo Metropolitan Institute of Tech., JAPAN) and Yamaguchi Toru (Tokyo Metropolitan Institute of Tech., JAPAN)</i>	
A Study on A Progressive SAW Tactile Display PC Mouse And Evaluation of The Performance	522
<i>Takasaki Masaya, Mizuno Takeshi (Saitama Univ., JAPAN) and Nara Takaaki (Nat'l Institute of Informatics, JAPAN)</i>	
Robot Assisted Activity at a Health Service Facility for the Aged	528
<i>Shibata Takanori (AIST&PRESTO), Wada Kazuyoshi, Saito Tomoko and Tanie Kazuo (AIST)</i>	
Human Robot Interaction via Wearable Robot	534
<i>Kobayashi Hiroshi (Science Univ. of Tokyo, JAPAN) and Kobayashi Hiroshi (Science Univ. of Tokyo, JAPAN)</i>	

TE05 : Robot System I

Loss Pathways and Control of a Slipping Robot Wheel	540
<i>Moskowitz Samuel E. (The Hebrew Univ., ISRAEL) and Moskowitz Samuel E. (The Hebrew Univ., ISRAEL)</i>	
Vibration Suppression Control for an Articulated Robot: Effects of Model-Based Control Using Time-Varying Control Model	545
<i>ITOH Masahiko (Tech. Miyagi Nat'l College, JAPAN) and ITOH Masahiko (Tech. Miyagi Nat'l College, JAPAN)</i>	
Intelligent Association in Agents Based Ubiquitous Computing Environments	551
<i>Duman Hakan, Hagrah Hani, Callaghan Vic, Clarke Graham and Colley Martin (Univ. of Essex, UNITED KINGDOM)</i>	
Robot Operation Management in Internet TeleCare Systems	557
<i>Hou Chunhai, Jia Songmin, Ye Gang and Takase Kunikatsu (Univ. of Electro Communications, JAPAN)</i>	
A decentralized control of cooperative transportation by multiple mobile robots using neural network compensator	563
<i>Yang Xin, Watanabe Keigo, Kiguchi Kazuo and Izumi Kiyotaka (Saga Univ., JAPAN)</i>	
Internet-based Teleoperation of a Mobile Robot with Force-reflection	569
<i>Lim Jae Nam, Moon Hae Gon, Ko Jae Pyung and Lee Jang Myung (Pusan Nat'l Univ., KOREA)</i>	

TE06 : Virtual Reality

- Generating Human Motions in Virtual Environment** 575
Park Ki-Ju, Baek Seong Min, Park Chang Jun and Lee In Ho (ETRI, KOREA)
- Endoscopy Training Simulator Using a 4-DOF Haptic Device** 581
Chung Seong Youb, Yoon Hyun Joong, Ahn Woo Jin and Lee Doo Yong (KAIST, KOREA)
- Externalization of sound image in 3D sound system based on headphone** 586
Yoon Youngsik and Park Youngjin (KAIST, KOREA)
- Design of a novel haptic mouse system** 589
choi hee-jin, kwon dong-soo (KAIST, KOREA) and kim mun-sang (KIST, KOREA)
- A Study of The Wearable Input Device Based on Human Hand-Motions Recognition** 595
Won Daehui, Lee Hogil and Kim Jinyoung (KITECH, KOREA)

TE07 : Identification II

- Mixed H₂/H_∞ infinity FIR Filters for Discrete-time State Space Models** 600
Lee Young Sam, Kwon Wook Hyun and Han Soo Hee (Seoul Nat'l Univ., KOREA)
- An Approach to a Formal Linearization for Time-variant Nonlinear Systems using Polynomial Approximations** 606
Komatsu Kazuo (Kumamoto Univ., JAPAN) and Takata Hitoshi (Kagoshima Univ., JAPAN)
- Feedback FE model updating using strain modeshapes** 612
Lee Jongho, Jung Hunsang and Park Youngjin (KAIST, KOREA)
- Identification of the air separation unit using subspace-based method** 617
Lee donghoon and Won sangchul (POSTECH, KOREA)
- Emotion recognition from brain waves using artificial immune system** 621
Choi Kyoung ho and Minoru Sasaki (Gifu Univ., JAPAN)
- System Identification Using Observer Kalman filter Identification** 625
Ryu Hee-Seob (IAE, KOREA), Yoo Ho-Jun (Inha Univ., KOREA) and Kim Dae-Woo (Unix Electronics Ltd. Co., KOREA)

TM01 : Poster Session

- ESTIMATION OF ERRORS IN INS WITH GPS** 629
Chang YuShin, Kim JaeSik, Ha SK, Kim CS, Kim EJ, Hong SP and Lee MH (Pusan Nat'l Univ., KOREA)
- Description of Range Control System in Space Center** 634
yun sek-young, choi yong tae and lee hyo keun (KARI, KOREA)
- A study on DGPS data Compensation using Vision System through respectively coordinates conversion for Autonomous Land Vehicle.** 638
park Janghun, Mun Seongryong, Song Suckwoo, Jeong Junik and Rho Dohwan (Chonbuk Nat'l Univ., KOREA)

FIPA-OS Framework Bundle Implementation over OSGi Service Platform	643
<i>Lee HyungJik, Ryoo DongWan and Lee JeunWoo (ETRI, KOREA)</i>	
Design Data Acquisition System Using Embedded PCI Local Bus Core	647
<i>Lee Sangdeok and Ham Woonchul (Chonbuk Nat'l Univ., KOREA)</i>	
A New Approach to the Stability Analysis Method of Networked Control Systems	652
<i>Jung Joonhong, Choi Sooyoung and Park Kiheon (SungKyunKwan Univ., KOREA)</i>	
A Study of Secure Data Transmission on Web-Based Monitoring and Control System	658
<i>Myung Jinhei (LG Co. Ltd., KOREA) and Myung Jinhei (LG Co. Ltd., KOREA)</i>	
Development of Web-based Monitoring System for Welding Robots in Shipbuilding	663
<i>YUN DONG SEB and LEE JI HYUNG (Hyundai Heavy Industries, KOREA)</i>	
Development of Performance Model of Profibus Token Passing Protocol	667
<i>Kim Hyun Hee, Lee Kyung Chang and Lee Suk (Pusan Nat'l Univ., KOREA)</i>	
A Study on the Channel Equalizer Noise of the Softmodem with Haar Transform and Neural Network	673
<i>Kim Jeong Ha, Nam Boo Hee (Kangwon Nat'l Univ., KOREA) and Lee Seok Won (YounTel Co., KOREA)</i>	
QoS of Internet Telephony using Intelligent Packet Management Method	677
<i>Ryu Tae-Uk, Kang Seong-Ho, Lee Jeong-Hun, Lim Joong-Gu (Dongguk Univ., KOREA), Chung Sung-Boo (Seoil College, KOREA) and Eom Ki-Hwan (Dongguk Univ., KOREA)</i>	
Compensation of Networked Control Systems Using LMI-based Delay-dependent H_∞ Optimization Method	682
<i>Yoo Ho-Jun (Inha Univ., KOREA), Ryu Hee-Seob (Institute for Advanced Engineering, KOREA) and Kwon Oh-Kyu (Inha Univ., KOREA)</i>	
An automatic Notification Service Using the OSGi Service Platform and SMS module	688
<i>Kang Kyu-Chang, Kang Dong-Oh and Lee Jeon-Woo (ETRI, KOREA)</i>	
A modified TCP/IP over IEEE-1394 for real-time control communication	693
<i>Youm Bokjin and Park Jaehyun (Inha Univ., KOREA)</i>	
A Case Study on an Internet-based Home Automation Control	697
<i>Cho Young-Jo, Kim Hyo-Sup and Lee GuhnSong (IControls Inc., KOREA)</i>	
A Control Algorithm for Wafer Edge Exposure Process	702
<i>Park Hong Lae (BLUEcord Tech., KOREA) and Lyou Joon (Chungnam Nat'l Univ., KOREA)</i>	
Robot Off-line Programming Based on CAD Data in Adhesive Application System for Shoe Outsoles and Uppers	708
<i>Jinyoung Kim Jinyoung Kim, Kang Dongjoong (Tongmyong Information Univ., KOREA), Cho Hyungsuck (KAIST, KOREA), Lho Taejung and Ahn Hyungkeun (Tongmyong Information Univ., KOREA)</i>	
Tool Planning in Assembly Simulation and its Application	713
<i>Liao Huafei and Zhang Linxuan (Tsinghua Univ., CHINA)</i>	
Modularization of Stocker for 300mm Wafer Fabrication AMHS	718
<i>Han Chanhee, Kim Jinki and Sung Hakkyung (Samsung Electronics Co. Ltd., KOREA)</i>	
A new color management approach for dye manufacturing process with image processing and intelligent algorithm	723
<i>Jang Kyungwon, Ahn Taechon (Wonkwang Univ., KOREA), Lee Dongyoon (Joongbu Univ., KOREA), Yoon Yangwoong and Kang Jinhyun (Wonkwang Univ., KOREA)</i>	
Application of the Vision Sensor for Weld Seam Tracking System in Large Vessel Fabrication	729
<i>Choi Sang Gu, Lee Jee Hyung and Ryu Sang Hyun (Hyundai Heavy Industries Co. Ltd., KOREA)</i>	

Web-based Remote Monitoring and Control of HVAC Systems on LonWorks	735
<i>Yang Jae-Won, Shim Il-Joo and Park Gwi-Tae (Korea Univ., KOREA)</i>	
Feedback Linearization for the Looper System of Hot Strip Mills	739
<i>Hwang I Cheol (Donggeui Univ., KOREA) and Kim Seong Bae (Donggeui Univ., KOREAV)</i>	
Scheduling model for processes with both batch and continuous operations	745
<i>Hwang Jeonghwa, Kang Min-gu (KAIST, KOREA), Moon Sungdeuk (Hanmetal Tech. Co. Ltd., KOREA), Lee Jong-gu, Lee Ho-kyung (LG Chem Ltd., KOREA) and Park Sunwon (KAIST, KOREA)</i>	
Development of PC Based Shape Control System In Cold Rolling Mill	751
<i>Park Yeong Bok and Lee Gyu Taek (POSCO, KOREA)</i>	
Development of a Real-Time Dynamic Simulator for Braking Performance Test of Aircraft with Anti-skid Brake System	756
<i>JEON JEONG WOO, LEE KI CHANG, HWANG DON Ha and KIM YONG JOO (KERI, KOREA)</i>	
MetaFluxNet: a program for metabolic flux analysis (MFA)	762
<i>Yun HongSoek, Lee Dong-Yup, Lee Sang Yup and Park Sunwon (KAIST, KOREA)</i>	
Digital Endoscopic Image Segmentation using Deformable Models	767
<i>Yoon Sung Won (Yonsei Univ., KOREA), Kim Jeong Hoon (Shinheung College, KOREA) and Lee Myoung Ho (Yonsei Univ., KOREA)</i>	
A Study on the Wavelet-based Nystagmus Analysis of Electronystagmographic(ENG) Signals	771
<i>Jang Hong-Seok, Jeong Jun-Ik, Lee Ho-sun and Rho Do-Hwan (Chonbuk Nat'l Univ., KOREA)</i>	
A Study on Development of Electronic Blood Pressure Depressor of Meridian Point Discrimination Type	775
<i>Kim Jung Ho, Lee Jin Woo (Dong-A Univ., KOREA), Son Joon Ho, Kim Soon Taek (EXSO Technology Research Institute, KOREA) and Lee Kwon Soon (Dong-A Univ., KOREA)</i>	
Measurement of Noise and Speed in the EMR using Power Line Network	780
<i>Song Yong-soo, Yoon Sung Won, Cho Young Bin, Lee Chung Keun, Min Se Dong, Bang Nam SuK and Lee Myung Ho (Yonsei Univ., KOREA)</i>	

TM02 : Poster Session

Improvement of the classical algorithm for H-infini optimization synthesis	784
<i>KIM Yong-Kyu (KRRI, KOREA), RYU Chang-Keun (Namseoul Univ., KOREA) and YANG Doh-Chul (KRRI, KOREA)</i>	
Decentralized Robust H_∞ Controller Design for Uncertain Large-scale Discrete-time Systems with Interconnected Time-delay	789
<i>Lee Mooyoung (Doowon Tech. College, KOREA), Oh Dochang (Konyang Univ., KOREA) and Kwon Woohyen (Kyungpook Nat'l Univ., KOREA)</i>	
Adaptive Output Feedback Controllers for Feedback Passive Nonlinear Systems	793
<i>Son Young I. (Dong-A Univ., KOREA), Shim Hyungbo (Hanyang Univ., KOREA), Jo Nam H. (Soongsil Univ., KOREA) and Seo Jin H. (Seoul Nat'l Univ., KOREA)</i>	
Delayed Feedback Non-fragile H_∞ Control for Uncertain Time-Delay Systems	799
<i>Kwon Ohmin and Won Sangchul (POSTECH, KOREA)</i>	
A robust design method for a long dead time system with an intergral mode	804
<i>Ma jin-suk, Kim sun-ja (ETRI, KOREA) and Kwon woo-hyen (Kyungpook Nat'l univ., KOREA)</i>	

H2 Design for Active Vibration Control of a Cantilever Beam	810
<i>Choi Sooyoung, Jung Joonhong and Park Kiheon (SungKyunKwan Univ., KOREA)</i>	
Output Feedback Stabilization of Non-Minimum Phase Nonlinear Systems	816
<i>JO Nam H. (Soongsil Univ., KOREA), SON Young I. (Dong-A Univ., KOREA) and Shim Hyungbo (Hanyang Univ., KOREA)</i>	
A Passivity-Based Control for a Crane System Without Velocity Measurements	821
<i>Son Young I. Son, Lim Young-Do, Choi Bu-Gwi (Dong-A Univ., KOREA), Shim Hyungbo (Hanyang Univ., KOREA) and Jo Nam H. (Soongsil Univ., KOREA)</i>	
Development of a Heated Vapor Inhalator Using LQG/LTR	826
<i>Rhee Jaehoon, Chae Kwangseok, Jeon Changwan and Park Joonsoo (Soonchunghyang Univ., KOREA)</i>	
Nonlinear adaptive control for multivariable system	831
<i>Song Sukheung and Song Sukheung (Yonsei Univ., KOREA)</i>	
Hybrid sliding mode control for bilinear system with uncertainty	835
<i>Jeon Hae-Jin, Lee Sung-Young and Choi Bong-Yeol (Kyungpook Nat'l Univ., KOREA)</i>	
Controller Design for a Piezoelectric Actuator Based on the Inverse Hysteresis Model	840
<i>Ahn Hyun-Sik (Kookmin Univ., KOREA) and Park Seung-Man (Samsung Techwin Co., KOREA)</i>	
Robustness Analysis in a Specified Circle for Perturbed Systems Using LMI	846
<i>Kim Chan Yong (KyungPook Nat'l Univ., KOREA), Kim Ga Gue (ETRI, KOREA), Kang byeng Chal and Chol Bong Yeol (KyungPook Nat'l Univ., KOREA)</i>	
A Time-Varying Sliding Mode for Robotic Manipulators	851
<i>Lee Sung-Young, Jeon Hae-Jin and Choi Bong-Yeol (Kyungpook Nat'l Univ., KOREA)</i>	
An Optimization of Polynomial Neural Networks using Genetic Algorithm	856
<i>Kim Dong-Won, Park Jang-Hyun (Korea Univ., KOREA), Huh Sung-Hoe (SKorea Univ., KOREA), Yoon Pil-Sang and Park Gwi-Tae (Korea Univ., KOREA)</i>	
Simple PD+I-type fuzzy controller design	859
<i>Kim Jae-Hyoung, Kim Ji-Hoon and Choi Bong-Yeol (Kyungpook Nat'l Univ., KOREA)</i>	
A new identification method for MIMO Hammerstein nonlinear processes	864
<i>Lee Yong Joon, Sung Su Whan and Park Sunwon (KAIST, KOREA)</i>	
Parameter Estimation of The Distributed System via Improved Block Pulse Coefficients Estimation	869
<i>Kim Tai-hoon (KISA, KOREA) and Shim Jae-sun (Samchok Nat'l Univ., KOREA)</i>	
Trajectory Control of Field Robot using H_2 Controller having Disturbance Observer Scheme	872
<i>Kim Sung su (Univ. of Ulsan, KOREA), Choi Jong Hwan (Pusan Nat'l Univ., KOREA), Yang Soon Yong, Lee Byung Ryong and Ahn Kyung Kwan (Univ. of Ulsan, KOREA)</i>	
Design of Robust Sliding Mode Control for Linear Systems with Mismatched Uncertainties using LMI	878
<i>Kim Ga-Gue, Kim Sun-Ja and Kim Heung-Nam (ETRI, KOREA)</i>	
New model reduction method and optimized the Smith predictor design using reduced model	882
<i>choi jeoung nae, Cho joon ho, Hwang Hyung Soo (Wonkwang Univ., KOREA) and Park Moon Soo (Jeonju Tech. College, KOREA)</i>	
An Indirect Decoupled Adaptive Fuzzy Sliding-Mode Control through width adaptation	888
<i>kim dowoo, yang haiwon (Hanyang Univ., KOREA) and han hongsook (Daeduk College, KOREA)</i>	

Parameters Identification of Gantry Crane By Using ANSYS	893
<i>KIM Hwan-Seong and NGUYEN Tuong-Long (Korea Maritime Univ., KOREA)</i>	
Adaptive Fuzzy Sliding Mode Controller for Nonaffine Nonlinear Systems	899
<i>Park Jang-Hyun, Kim Dong-Won, Huh Sung-Hoe and Park Gwi-Tae (Korea Univ., KOREA)</i>	
Nonlinearity Estimation and Compensation using extended Observer on a dynamics system	905
<i>Park rai wung and Hu renwei (Daebul univ., KOREA)</i>	
Identification and Control of Model Helicopter in Hovering	911
<i>Park Duckgee, Yang Dong-Hoon, Park Moon-Soo and Hong Suk-Kyo (Ajou Univ., KOREA)</i>	
The compensation for network control delay in using two part simulation	917
<i>Bae sang hoon, Yoo Ho Jun (Inha Univ., KOREA), Lee Myung Eui (Korea Univ. of Tech. & Edu., KOREA) and Kwon Oh Kyu (Inha Univ., KOREA)</i>	
An Experimental Application of Observer/Controller Identification Algorithm to the System Identification of Inherently Unstable Systems	922
<i>Park Mun-Soo, Yang Dong-Hoon and Hong Suk-Kyo (Ajou Univ., KOREA)</i>	
An Effective Maneuver Detection Strategy with Computational Load Saving	928
<i>Ahn Byeong Wan, Choi Jae Weon (Pusan Nat'l Univ., KOREA) and Song Taek Lyul (Hanyang Univ., KOREA)</i>	
A Backstepping Design with Sliding Mode Control for Uncertain Discrete System	933
<i>park seung Kyu, kim min chan, kim tae won and Ahn ho kyun (changwon nat'l univ., KOREA)</i>	
Characteristic Ratio Assignment method and its Application to the EJC Benchmark Problem	936
<i>Kim Young Chol, Baek Seung Koo and Cho Tae Shin (Chungbuk Nat'l Univ., KOREA)</i>	
A Robust Direct Adaptive Controller Design for Nonlinear Systems using High-Order Neural Networks	941
<i>Lee Hyo-Seop, Cheong Jin-Hyuk (Hanyang Univ., KOREA), Rhee Hyoung-Chan (Daejin Univ., KOREA) and Yang Hai-Won (Hanyang Univ., KOREA)</i>	
Compact 3-DOF Mobile Microrobot for Mirco/Nano Manipulation	947
<i>Kim Taesung, Park Jungyul, Kim Deok-Ho (KIST, KOREA) and Lee Kyo-Il (Seoul Nat'l Univ., KOREA)</i>	
Adaptive Output Feedback Speed Control of Induction Motors with Uncertain Rotor Resistance and Load Torque	952
<i>Hwang Young Ho, Yang Hai Won (Hangang Univ., KOREA), Kim Hong Pil (Kyungil Univ., KOREA) and Kim Hyung Joong (Hangang Univ., KOREA)</i>	
Digitla Redesign of Observer-Based Output Feedback Controller	958
<i>Lee Ho Jae, Park Jin Bae (Yonsei Univ., KOREA), Cho Kwang Lae (Kunsan Nat'l Univ., KOREA) and Joo Young Hoon (Kunsan Nat'l Univ., KOREA)</i>	
Robust Controller Implementation in DCS for a MIMO Paper-making Process with Long Transport	964
<i>Lee B. K., Lee B. K. and Lim K. Y. (LGIS, KOREA)</i>	

TM03 : Poster Session

A study of web-based remote control systems using Java language	969
<i>Park Chuloh, Song Insung, Ahn Kyungkwon, Yang Soonyong and Lee Byungryong (Univ. of Ulsan, KOREA)</i>	

Intelligent control of pneumatic actuator using On/Off solenoid valves	975
<i>Song Insung, Pyo Sungman, Ahn Kyungkwan , Yang Soonyong and Lee Byungryong (Univ. of Ulsan, KOREA)</i>	
A Development of the Power Conditioning Technique for Grid-connective PV Power Systems	981
<i>Ko S.H, Lee S.R and Kim S.S (Kunsan Nat'l Univ., KOREA)</i>	
Implementation of (RSF + RPP) PWM Inverter for reducing Harmonics	982
<i>Ha SangMok (Chonbuk Nat'l Univ., KOREA), Han WooYong (Jeonju Tech. College, KOREA), Lee ChangGoo and Kim SeongJoong (Chonbuk Nat'l Univ., KOREA)</i>	
A Recognition Method for the Step Movement of A Control Rod in Nuclear Power Plants	986
<i>Kim ChoonKyung, Kim SeogJoo, Lee JongMoo (KERI, KOREA), Lee JangMyung (Busan Nat'l Univ., KOREA), Kwon SoonMan and Cheon JongMin (KERI, KOREA)</i>	
Development of Intelligent Force Reflection Joystick using Pneumatic Motor	990
<i>Pyo Sungman, Song Insung, Ahn Kyungkwan , Yang Soonyong and Lee Byungryong (Univ. of Ulsan, KOREA)</i>	
Energy Saving Hydraulic Control System using Hydraulic Pump/Motor	995
<i>Cho Yongrae, Oh Bumseung, Ahn Kyoungkwan, Yang Soonyong and Lee Byungryong (Univ. of Ulsan, KOREA)</i>	
An Optimal Design of a two stage relief valve by Genetic Algorithm	1000
<i>Kim seungwoo, Im doowan, Ahn Kyungkwan, Yang Soonyong and Lee Byungryong (Univ. Of Ulsan, KOREA)</i>	
Design of a Common Control Rod Control System(CRCS) Using Wavelet Transform for Fault Detection	1006
<i>Cheon Jong-Min, Kim Choon-Kyung, Kwon Soon-Man, Lee Jong-Moo and Kim Jong-Moon (KERI, KOREA)</i>	
Center Position Control of Cold Rolling Mills Using Coefficient Diagram Method	1011
<i>Kim Young Ho, Ahn Byoung Joon, Lee Dong Wook (Pusan Nat'l Univ., KOREA), Bae Jong Il (Pukyong Nat'l Univ., KOREA) and Lee Man Hyung (Pusan Nat'l Univ., KOREA)</i>	
A Study on Improvement of Flatness Control for Aluminum Cold Rolling Mill	1016
<i>Kim TaeYoung and Kraeling Bill (Automation depart Alcan Ulsan plant, KOREA)</i>	
Tension control of a Hot strip mill finisher using measured speed data	1020
<i>Lee Dukho and Won Sangchul (POSTECH, KOREA)</i>	
Robust design of vertical type micro-accelerometer and coupled field analysis with FEM	1023
<i>Park Jungyul (KIST, KOREA), Lee Innam, Yoon Gil Ho, Seok Seonho, Kim Jeongheon, Chun Kukjin and Lee Kyo-II (Seoul Nat'l Univ., KOREA)</i>	
A Study on Anti-Sway Control Using PID Controller for a Remote Crane Operation	1029
<i>Lho Tae-Jung, Choi Dae-Woo and Joo Hyun-Woo (Tongmyoung Information Univ., KOREA)</i>	
Decoupling Based PID Control and Intelligent Tuning of Multivariable Thermal Power Plant	1033
<i>Kim Dong Hwa (Hanbat Nat'l Univ., KOREA) and Kim Dong Hwa (Hanbat Nat'l Univ., KOREA)</i>	
Testbed Development for Vehicle Longitudinal Platooning Control via Remote Control Station Control	1039
<i>Song Hae Seok, Kim Tae Min and Choi Jae Weon (Pusan Nat'l Univ., KOREA)</i>	
The Tension Control by using CDM of the Full Stand Hot Finishing Mill	1043
<i>Lee Dong Wook, Ahn Byoung Joon , Kim Young Ho and Lee Man Hyung (Pusan Nat'l Univ., KOREA)</i>	
Implementation and Tests of Antilock Braking Algorithm for a heavy vehicle	1049
<i>Lee KiChang, Jeon Jeongwoo, Hwang Donha and Kim Yongjoo (KERI, KOREA)</i>	

Classify Layer Design for Navigation Control of Line-Crawling Robot : A Rough Neurocomputing Approach	1054
<i>Ahn Taechon (Wonkwang Univ., KOREA), Peters James F. and Borkowski Macey (Univ. of Manitoba, CANADA)</i>	
Remote Measurement of ECU Self-Diagnostic Signal based on the Windows CE	1060
<i>Lee Seong-Cheol, Yun Yeo-Hung , Se Ji-Won , Kwon Tae-Kyu, Lee Young_Chun (chonbuk nat'l univ., KOREA) and Jang Bong-Choon (General Motors Co., USA)</i>	
Exhaust Gas Recirculation Control in a Spark-Ignition LPG Engine Using Neural Networks	1066
<i>Cui Hongwei, Liu Yifang and Zhai Yujian (Southeast Univ., CHINA)</i>	
Design of a Fault-tolerant Embedded Controller for Railway Signaling Systems	1070
<i>Cho Yong-Gee and Lim Jae-Sik (LGIS, KOREA)</i>	
A Performance Test Equipment for Rechargeable Electric Tools	1079
<i>Lee Jong Kwang, Lim Hyo-Jae, Choi Min-Kyu (Chungnam Nat'l Univ., KOREA), Koh Jin-Ha, Lee Kyu-Won (Keyang Electric Machinery Co. Ltd., KOREA) and Kang E-Sock (Chungnam Nat'l Univ., KOREA)</i>	
PC-based 3D graphic spacecraft simulator using OpenGL	1084
<i>Kim Seung-Jun, Lee Sang-Wook, Jeong Woo-Seong and Ahn Byung-Ha (K-JIST, KOREA)</i>	
Application of Fuzzy Control for STS Strip Shape	1089
<i>Hur YoneGi (POSCO, KOREA) and Hur YoneGi (POSCO, KOREA)</i>	
Industrial application of gross error estimation and data reconciliation to byproduction gases in iron and steel making plants	1093
<i>Yi Heui-Seok, Shin Hakchul, Kim Jeong Hwan and Han Chonghun (POSTECH, KOREA)</i>	
Optimization of Redundancy based on the required reliability for a reliable Systems	1097
<i>Ryoo Dong Wan, Lee Hyung Jik and Lee Jeun Woo (ETRI, KOREA)</i>	
Modification of CRACKER - a PC based furnaces simulator	1102
<i>Lim Heejin (KAIST, KOREA), Kim Do Jun, Yang Jae Young, Park Joon Taek (SK Co. Ltd., KOREA) and Park Sunwon (KAIST, KOREA)</i>	
Development of a Styrene Monomer Reactor Simulator	1107
<i>Yoon Sung-geun, Lim Heejin, Kang Min-gu (KAIST, KOREA), Lee Jeongseok (LG, KOREA) and Park Sunwon (KAIST, KOREA)</i>	
The Development of the Real Time Optimal Byproduct Gas Supply System	1112
<i>Kim Jeonghwan, Yi Heui-Sok and Han Chonghum (POSTECH, KOREA)</i>	
A modified strategy for DNA coding based genetic algorithm and its experiment	1118
<i>Jang Kyungwon, Ahn Taechon (Wonkwang Univ., KOREA), Lee Dongyoon (Joongbu Univ., KOREA), Kim Seonik and Kang Jinhyun (Wonkwang Univ., KOREA)</i>	
Immune Based 2-DOF PID Controller Design for Complex Process Control	1123
<i>Kim Dong Hwa (Hanbat Nat'l Univ., KOREA) and Kim Dong Hwa (Hanbat Nat'l Univ., KOREA)</i>	
Robust Controller Implementation in DCS for a MIMO Paper-making Process with long transport delays	1129
<i>Kang Ki Ho (Korea Univ. of Tech. & Edu., KOREA), Lee Bong Kuk (LGIS R& D Center, KOREA) and Lim Kye-Young (LGIS R&D Center, KOREA)</i>	
Anti-Windup Starting-Time Control Strategy for a First-Order-Plus-Dead-Time Model and Application of Extruder Temperature Control	1134
<i>Onogaki Hitoshi, Yokoyama Shuichi (Kogakuin Univ., JAPAN), Hamane Hiroto (Gunma Univ., JAPAN) and Kanouya Kazuyuki (Kogakuin Univ., JAPAN)</i>	

FA01 : Control Instrument

- Induction Heating** 1140
Pongswatd Sawai, Ukakimapurn Prapart, Sriratana Witsarut and Kumool Sart (KMUTL, THAILAND)
- The Roll Control of a Flight Projectile Using a Switched Reluctance Motor** 1144
Kim Yongdae and Park Kyihwan (KJIST, KOREA)
- A Coupled-Field Analysis of Galloping for Power Transmission Line** 1148
KIM Hwan-Seong, NGUYEN Tuong-Long (Korea Maritime Univ., KOREA) and BYUN Gi-Sig (Pukyong Nat'l Univ., KOREA)
- Dual-Output DC-DC Power Supply with Buck-Boost and Zeta Converter** 1154
Kanthaphayao Yutthana, Rungruengphalanggul Yuttasak and Chaisawadi Ake (KMUTT, THAILAND)
- H/sub/spl infin// Controller Design for Parallel DC-DC Buck Converters** 1159
Supatti Uthen, Boonto Sudchai, Monyagul Veerapol and Prapanavarat Cherdchai (KMUTT, THAILAND)
- Control of the Intraocular Pressure by Using the Micro Valve Actuator for a Glaucoma Implant** 1164
Bae Byunghoon, Park Junhyun, Park Kyihwan, Lee Jonghyun (KJIST, KOREA), Lee Yeon (Lee Yeon Eye Clinic), Kee Hongseok, Kim Seonho (Lee Yeon Eye Clinic, KOREA), Sim Taeseok and Kim Yongkweon (Seoul Nat'l Univ, KOREA)

FA02 : Multimedia and Control System

- Mixed Model Reduction to Improve Steady-State Behaviour of RLC Circuits** 1169
Lee Won Kyu (Hanbat Nat'l Univ., KOREA) and Sreeram Victor (Univ. of Western Australia, AUSTRALIA)
- Design of Sliding Mode Controller for Discrete Linear Systems with Uncertainty Using New Discrete Reaching Laws** 1174
Kim Jinsu, Son Sung-Han, Cho Byungsun, Park Kang-Bak (Korea Univ., KOREA), Tsuji Teruo and Hanamoto Tsuyoshi (Kyushu Institute of Technology, JAPAN)
- On-line Motion Adaptation : a Hybrid Approach** 1180
baek seongmin, kim junae and chung jaeyong (ETRI, KOREA)
- The control strategy for Steer-by-Wire test system** 1185
Jang Seok-Hwan, Chae Ho-Chol, Oh Se-Wook, Han Chang-Soo, Park Tong-Jin (Hanyang Univ., KOREA) and Yun Seok-Chan (Hyundai Mobis)
- Speaker Identification Using Incremental Learning** 1191
sim kwee-bo, heo kwang-seung and lee dong-wook (Chungang Univ., KOREA)
- Mobile Software Agents for Information Retrieval in WWW-Databases** 1195
Herzig Claudia (NEMETech, Germany) and Hockauf Brit (IGD Rostock, Germany)

FA03 : Nonlinear Control I

Nonlinear Control of General System based on a Model with Coefficients of State-Depended Representation	1199
<i>NAKAMURA Masatoshi and ZHANG Tao (Saga Univ., JAPAN)</i>	
LPD(Linear Parameter Dependent) System Modeling and Control of Two Wheeled Mobile Robot	1205
<i>Kang Jin-Shig (Cheju Nat'l Univ., KOREA) and Kang Jin-Shig (Cheju Nat'l Univ., KOREA)</i>	
Design of an Augmented Automatic Choosing Control via Hamiltonian and GA for a class of Nonlinear Systems with Constrained Input	1210
<i>Nawata Toshinori (Tech. Kumamoto Nat'l College, JAPAN) and Takata Hitoshi (Kagoshima Univ., JAPAN)</i>	
Design of PI/PID Controller by CDM for Speed Control of Two-Inertia Systems	1216
<i>Tantaworrasilp Apicit, Ngamwivit Jongkol, Panaudomsup Sumit, Benjanarasuth Taworn (KMITL, THAILAND) and Komine Noriyuki (Tokai Univ, JAPAN)</i>	
A Nash Solution to Predictive Control Problem for a Class of Nonlinear Systems	1222
<i>Ahn Choon Ki and Kwon Wook Hyun (Seoul Nat'l Univ., KOREA)</i>	
A Non-linear Control of A Magnetic Levitation System Based on Passivity	1227
<i>Shimizu Toshimi and Sasaki Minoru (Gifu Univ., JAPAN)</i>	

FA04 : Biomedical

Control of Platelet Rolling and Adhesion	1233
<i>Moskowitz Samuel E. (The Hebrew Univ., ISRAEL) and Moskowitz Samuel E. (The Hebrew Univ., ISRAEL)</i>	
An experimental study on the human upright standing posture exposed to longitudinal vibration	1237
<i>Shin Young-Kyun, Muhammad Arif and Hikaru Inooka (Tohoku Univ., JAPAN)</i>	
Non-restricted Measurement and Diagnosis of ECG signals	1241
<i>Jeong Gu Young and Yu Kee Ho (Chonbuk Nat'l Univ., KOREA)</i>	
Development of compact environment control system using eye-ball movement	1246
<i>Nakashima Yasuhiro, Matsuo Mikohiro, Kei Inoue (Nagasaki Univ., JAPAN), Yoshimura Takaki (Labo-tech Co.Ltd) and Ishimatsu Takakazu (Nagasaki Univ., JAPAN)</i>	
Device for Assisting Grasping Function	1250
<i>Moromugi Shunji, Izumi Keisuke, Yoshimochi Atsushi, Ishimatsu Takakazu (Nagasaki Univ., JAPAN), Tanaka Takayuki (The Univ. of Electro Communications, JAPAN) and Feng Maria Q. (Univ. of California, USA)</i>	
Motored Wheel Chair applicable to a variety of disabled	1255
<i>Jozaki Toru, Tanaka Motohiro, Murry J Lawn and Ishimatsu Takakazu (Nagasaki Univ., JAPAN)</i>	

FA05 : Robot System II

Performance Evaluation of An Intuitive Robot Teach Method Using a Force/moment Direction Sensor	1260
<i>Choi Myoung H. and Lee Woo Won (Kangwon Nat'l Univ., KOREA)</i>	

Determination of the Actual Solution of the Forward Kinematics of 6-dof Parallel Manipulators	1266
<i>Song Se-Kyong (Samsung Electronics Co. Ltd., KOREA), Choi J.Y., Sung H.K. (Samsung Electronics Co. Ltd., KOREA) and Kwon Dong-Soo (Dept. Mechanical Engineering, KAIST)</i>	
Five-DOF Polymer Actuator Based on Dielectric Elastomer	1272
<i>Jung Kwangmok, Lee Sangwon, Kwak Jongwon, Kim Hunmo, Nam Jaedo, Jeon Jaewook and Choi Hyoukryeol (Sungkyunkwan Univ. KOREA)</i>	
Internet-Based Control for Distributed Robotic Systems Using CORBA as Communication Architecture	1278
<i>Jia Songmin, Hada Yoshiro, Ye Gang, Hou Chunhai and Takase Kunikatsu (Univ. of Electro Communications., JAPAN)</i>	
Evolutionary Reinforcement Learning System with Time-Varying Parameters	1284
<i>Umesako Kosuke, Obayashi Masanao and Kobayashi Kunikazu (Yamaguchi Univ., JAPAN)</i>	
Anthropomorphic Robot Hand: Gifu Hand III	1288
<i>Mouri Tetsuya, Kawasaki Haruhisa, Yoshikawa Keisuke, Takai Jun and Ito Satoshi (Gifu Univ., JAPAN)</i>	

FA06 : Sensors and Instrumentation I

An Audio Signal Wire Condition Test Device	1294
<i>Tanachaikhan Lerdlekha (Ramkhamhaeng Univ, THAILAND), Sriratana Witsarut and Pongswatd Sawai (KMUTI, THAILAND)</i>	
New method of optical laser extensometer	1298
<i>noh jiwghan (KJIST, KOREA) and noh jiwghan (KJIST, KOREA)</i>	
Variable Multi-valued Spatial Filter Detector with High Speed Exchangeable Weighting Function and Its Application	1302
<i>GO Hyunmin, Takayama Junya, Ohyama Shinji and Kobayashi Akira (Tokyo Institute of Tech., JAPAN)</i>	
Preliminary study of time-of-flight measurement for 3D position sensing system based on acoustic signals	1307
<i>Kim Heung Gi and Park Youngjin (KAIST, KOREA)</i>	
Coil Sensors for Wire Rope Inspection using Magnetic Flux Leakage Instrument	1311
<i>Jomdech Cherdpong, Prateepasen asa and Methong Wachira (KMUTT, Thailand)</i>	
A Digital Data Transmission Unit using Asynchronous Protocol for Power Transmission line	1317
<i>NISHIYAMA Eiji, KUWANAMI Kenshi, KITAJIMA Hiroyuki and KAWANO Mitsunori (Tech. Kumamoto Nat'l College, JAPAN)</i>	

FA07 : Signal Processing I

Analog Multiplier Using Translinear Current Conveyor	1321
<i>Chaikla Amphawan, Kaewpoonsuk Anucha, Wangwiwattana Chaleompun, Riewruja Vanchai and Jaruvanawat Anuchit (KMUTL, THAILAND)</i>	

Development of Sound Source Localization System using Explicit Adaptive Time Delay Estimation	1325
<i>Kim Doh-Hyoung and Park Youngjin (KAIST, KOREA)</i>	
Novel Active High Pass Filter with Notch Characteristic using Uniformly Distributed RC Line	1330
<i>Kanok Janchitrapongvej, Prakrit Tangtisanon, Chainarong Janin, Nouanchanh Panyanouvong and Sorapong Saetia (KMITL, THAILAND)</i>	
A Flexible Precise 2D-Image Reconstruction in X-Ray Computed Tomography for Soft Tissues Based On Non-Uniform Sampling Theorem	1333
<i>Sasaki Kimio (Univ. of Tsukuba, JAPAN) and Okaniwa Hirokazu (Toshiba Information Systems Tech. Inc. JAPAN)</i>	
Fault detection for Energy Network by use of Prural M-sequences	1339
<i>NISHIYAMA Eiji, OWAKI Kosuke and KUWANAMI Kenshi (Tech. Kumamoto Nat'l College, JAPAN)</i>	
Wide Swing CMOS Current Follower Circuit	1343
<i>Jirawath Parnklang, Ampaul Manasphrum and Nipath Pinamorn (KMITL, THAILAND)</i>	

FP01 : Invited Session III (Haptic System)

Development of a Parallel-Typed Walking Robot for Breakwater Construction	1347
<i>Park Kun Woo, Kim Tae Sung, Park Sung Min and Lee Min Ki (Changwon National Univ., KOREA)</i>	
Emotional Recognition of speech signal using Recurrent Neural Network	1352
<i>Park Chang-Hyun and Sim Kwee-Bo (Chungang Univ., KOREA)</i>	
The Robot Arm Control by EMG Pattern Recognition	1357
<i>Kim Joo-Woong, Jung Kyung-Kwon, Park Jin-Seong, Eom Ki-Hwan (Dongguk Univ., KOREA), Son Dong-Seol (Yuhan College, KOREA) and Lee Hyun-Kwan (Honam Univ., KOREA)</i>	

FP02 : Invited Session IV (Aerospace IV)

A probabilistic nearest neighbor filter incorporating numbers of validated measurements	1363
<i>Shin Sang J., Song Taek-Lyul (Hanyang Univ., KOREA) and Ahn Jo-Young (ADD, KOREA)</i>	
Guidance Law for a Flight Vehicle after Burnout	1368
<i>Dohi Naoto, Baba Yoriaki and Takano Hiroyuki (Nat'l Defense Academy, JAPAN)</i>	
Design of integrated navigation system using GPS and pseudolite	1374
<i>Chang Jae-Won, Kim Sung Tae, Lee Sang Jeong (Chungnam Nat'l Univ., KOREA), Park Chansik and Choi Jae Youl (Chungbuk Nat'l Univ., KOREA)</i>	

FP03 : Nonlinear Control II

Speed Control of Ultrasonic Motor using PDF Controller Designed by CDM	1378
---	------

Isarakorn Don, Benjanarasuth Taworn, Panaudomsup Sumit, Ngamwiwit Jongkol (KMITL, THAILAND) and Komine Noriyuki (Tokai Univ., JAPAN)

Vibration Suppression Control for a Twin-Drive Geared Mechanical System with Backlash: Simulation Study on Effects of Model-Based Control 1384

ITOH Masahiko (Tech. Miyagi Nat'l College, JAPAN) and ITOH Masahiko (Tech. Miyagi Nat'l College, JAPAN)

Decentralized Control for Multimachine Power Systems with Nonlinear Interconnections and Disturbances 1390

Jung Kyu-Il, Kim Kwang-Youn, Yoon Tae-Woong and Jang Gilsoo (Korea Univ., KOREA)

Receding horizon controller design for fuzzy systems with input constraints 1395

Jeong Seung Cheol, Choi Doo Jin and Park POOGyeon (POSTECH, KOREA)

Nonlinear Observers for Perspective Time-Varying Linear Systems 1401

Abdursul Rixat and Inaba Hiroshi (Tokyo Denki Univ., JAPAN)

Disturbance Observer Design for Track-following Control in Optical Disk Drive using Structured Singular Value 1407

Ryoo Jung Rae, Chung Myung Jin (KAIST, KOREA) and Doh Tae-Yong (Hanbat Nat'l Univ., KOREA)

FP04 : Humanoid Robot

Human-Friendly Interfaces of a Robot Manipulator Control System for Handicapped Person 1413

Lim Soo-chul, Lee Kyoobin and Kwon Dong-Soo (KAIST, KOREA)

Impact Analysis in the Landing Motion of Humanoid Robot 1419

So Byung Rok, Kim Seong Hoon, Choi Jae Yeoni, Yi Byung-Ju (Hanyang Univ., KOREA) and Kim Wheekuk (Korea Univ., KOREA)

A global localization method for mobile robot navigation using genetic algorithm 1425

Kim Min Young, Cho Hyung Suck (KAIST, KOREA), Koh Kyung Chul (Sunmoon Univ., KOREA) and Kim Jae Hoon (Samsung Heavy Industries Co. Ltd., KOREA)

Design of a 3-DOF Hip Module for Humanoid 1430

So Byung Rok, Yi Byung-Ju (Hanyang Univ., KOREA) and Kim Wheekuk (Korea Univ., KOREA)

Design of a biped robot using DSP and FPGA 1434

Oh sung-nam, Seo jae-kwan, Lee sung-ui and Kim kab-il (Myongji Univ., KOREA)

The maneuvering system of omnidirectional wheelchair by changing user's posture 1438

Ohnishi Takayuki and Kunikatsu Takase (Univ. of Electro Communications, JAPAN)

FP05 : Robot System III

Position and Force Control Based on Fuzzy Switching Algorithm 1444

Jin Jaehyun, Ahn Sungho, Park Byungsuk and Yoon Jisup (KAERI, KOREA)

Stable Biped Walking by Trunk and Waist Motion 1449

Lim Hun-ok, H (Kanagawa Institute of Tech., JAPAN) and Takanishi Atsuo (Waseda Univ., JAPAN)

Impedance characteristic of human arm for cooperative robot 1455

- Rahman Md. Mozasser, Ikeura Ryojun and Mizutani Kazuki (Mie Univ., JAPAN)*
Dynamic analysis and control for an UAV of DC motor type 1461
Park YunSoo, Lee HoGil, Ryu ShinWook, Kim JinYoung, Won DaeHui (KITECH, KOREA) and Park JongHyun (Hanyang Univ., KOREA)
Workspace Mapping for a Manipulator Operated by Universal Master 1466
Lee Min-Soo, Lee Jong Kwang, Kang E-Seok (Chungnam Nat'l Univ., KOREA), Park Byung Suk, Yoon Ji Sup and Song Tai Gil (KAERI, KOREA)

FP06 : Sensors and Instrumentation II

- A Few Applications of Polarity Correlation Method in a Frame of Deterministic Signals** 1471
Sasaki Kimio (Univ. of Tsukuba, JAPAN) and Ikeda Mariko (IBM, Japan Ltd., JAPAN)
Length of Conductive Measurement Based-on Basic Theory 1477
Tanachaikhan Lerdlekha (Ramkhamhaeng Univ., THAILAND), Sriratana Witsarut and kumool Sart (KMITL, THAILAND)
Buried Object Discrimination with Reflection Phase Characteristics for Microwave Subsurface Radar 1481
TANAKA Masayuki, TAKAYAMA Jun-ya, OHYAMA Shinji and KOBAYASHI Akira (Tokyo Institute of Tech., JAPAN)
Properties of Two-dimensional M-transform with Applications to Image Processing 1486
Kashiwagi Hiroshi, Harada Hiroshi, Yamaguchi Teruo and Andoh Toshiyuki (Kumamoto Univ., JAPAN)
Detection and Diagnosis of Sensor Faults for Unknown Sensor Bias in PWR Steam Generator 1492
Kim Bong Seok, Kang Sook In, Lee Yoon Joon, Kim Kyung Youn (Cheju Nat'l Univ., KOREA), Lee In Soo (Sangju Nat'l Univ., KOREA), Kim Jung Taek and Lee Jung Woon (KAERI, KOREA)
Looseness Estimation of Bolts on Truss Structure with PZT Patches 1497
Jiang Zhongwei and Akeuchi Yasutaka (Yamaguchi University)

FP07 : Signal Processing II

- An Analog Voltage-mode Sorter For Real-time Signal Processing** 1503
Chaikla Amphawan, Kaewrongkool Maneerat, Wangwiwattana Chaleompun, Jaruanawat Anuchit and Riewruja Vanchai (KMITL, THAILAND)
CANCELLATION OF ECHOES IN TELEPHONE NETWORK WITH THE ADAPTIVE STEP SIZE LATTICE FORM STRUCTURE 1507
Benjangkprasert Chawalit, Teerasakworakun Sirirat, Benchapornkullanij Sirithon and Janchithapongvej Kanok (KMITL, THAILAND)
On Application of QLMS and VSQMS Adaptive Digital Filter in Satellite Communication System 1512
Sangaroon Ornlarp, Griwan Jintana, Benjangkprasert Chawalit, Chutchavong Vanvisa (KMITL, THAILAND), Nakasuwan Jintana (Rajamangala Institute of Tech., THAILAND) and Moriya Yoshiaki (Tokai Univ., JAPAN)

- New sequential paired comparison method to decrease number of comparison using BMPC method** 1517
Toriumi Fujio, Takayama Jun-ya, Ohyama Shinji and Kobayashi Akira (Tokyo Institute of Tech., JAPAN)
- Image Analysis for Detection of Defects of BGA by Using X-ray Imaging** 1521
SUMIMOTO Tetsuhiro, MARUYAMA Toshinori, AZUMA Yoshiharu, GOTO Sachiko (Okayama Univ., JAPAN), MONDOU Munehiro, FURUKWA Noboru (Pref. Hiroshima, JAPAN) and OKADA Saburo (AIST, JAPAN)
- Theoretical Analysis of the One-Bit-of-Information Conjecture for Independent Component Analysis** 1525
Liu Zhi-yong, Chiu Kai-chun and Xu Lei (Chinese Univ. of Hong Kong, CHINA)

FE01 : Industrial Application I

- The Application of Automated Guided Vehicle(AGV) Based on Inductive Guidance for Newsprint Rolls Transportation System** 1530
chao chen, bing wang and Qingtai Ye (Shanghai Jiaotong Univ., CHINA)
- Characteristics of U-Shaped Slot Antenna fed by Microstrip Line** 1535
Anantrasirichai Noppin, Chanwattanapong Wanchalerm, Pomsathit Auttapon (KMITL, THAILAND) and Wakabayashi Toshio (Tokai Univ., JAPAN)
- An Adaptive Cruise Control Study Using a Driving Simulator** 1539
Nam Hyoung-Kwon, Lee Woon-Sung, Lee Ji-Young and Kim Jae-Suk (Kookmin Univ., KOREA)
- Analysis of dynamic characteristics of a new electric power steering system** 1545
Boo Kwangsuck, Song Jeonghoon, Lee Jongil (Inje Univ., KOREA) and Hong Sunyoung (Meccatech Co. Ltd, KOREA)
- Development of Floating Power Supply for Current Measurement System of High Voltage Power Line** 1551
Oota Ichirou, Hattori Hiroaki, Nishiyama Eiji, Matsuda Toyonori, Kawano Mitsunori and Kuwanami Kenji (Tech. Kumamoto Nat'l College, JAPAN)
- Design and Dynamic Characteristic Analysis of the Direct Drive-type Pneumatic Servo Valve** 1557
Kim DongSoo and Lee WonHee (KIMM, KOREA)

FE02 : Artificial Neural Network

- A Convolutional Decoder using a Serial Input Neuron** 1563
Kim Kyunghun, Lee Chang Wook and Jeon Gi Joon (Kyungpook Nat'l Univ., KOREA)
- The Growth Process of Interactive Virtual Life using Genetic Algorithm** 1568
Kwon Min Su, Kim Do Wan and Kang Hoon (Chungang Univ., KOREA)
- A GRNN Classification of Statistically Designed Experiment** 1574
Kim Kunho and Kim Byungwhan (Sejong Univ., KOREA)
- One-chip determinism multi-layer neural network on FPGA** 1579
Suematsu Ryosuke, Shimizu Ryosuke and Aoyama Tomoo (Miyazaki Univ., JAPAN)

Quantitative structure-activity relationships (QSAR) on use of multi-valued AND/OR networks	1585
<i>Aoyama Tomoo and Nagashima Umpei (Miyazaki Univ., JAPAN)</i>	
Estimation of human behavior at home by using the sensor of electric appliances	1591
<i>Shibasato Koki and Matsumoto Tsutomu (Tech. Kumamoto Nat'l College, JAPAN)</i>	

FE03 : Nonlinear Control III

Distinctive point extraction and recognition algorithm for counters for the various kinds of bank notes.	1597
<i>Joe Yong-won, An Eung-seop, Lee Jae-kang and Kim Il-hwan (Kangwon Nat'l Univ., KOREA)</i>	
Integral Controller Design for Time-Delay Plants Using a Simplified Predictor	1601
<i>Ishihara Tadashi (Tohoku Univ., JAPAN) and Wu Jingwei (NRC Innovation Centre, CANADA)</i>	
A Study of μ-Mode Selecting Fuzzy Controller¹ for a Dynamic System under Irregular Disturbance	1607
<i>Yoon Young-Soo, Kim Yong-Kwan, Lee Jong-Bok, Choi Won-Seok and Heo Hoon (Korea Univ., KOREA)</i>	
Global Stabilization of High-Order Cascade Nonlinear Systems Using Smooth Feedback	1611
<i>Alimhan Keylan and Inaba Hiroshi (Tokyo Denki Univ., JAPAN)</i>	
Development of an Automatic Sorting System Driven by Friction Force	1616
<i>ko min seok, lee jeong wook and kim jung ha (Kookmin Univ., KOREA)</i>	
Active Stick Control using Frictional Torque Compensation	1621
<i>Nam Yoonsu (Kangwon Nat'l Univ., KOREA) and Nam Yoonsu (Kangwon Nat'l Univ., KOREA)</i>	

FE04 : Manufacturing I

Automation of Solid Freeform Fabrication System	1627
<i>Min SangHyun and Um TaiJoon (Soonchunhyang Univ., KOREA)</i>	
ICA based Thermal Source Extraction and Thermal Distortion Compensation for Machine Tools	1631
<i>Lee Dong Soo, Choi Jin Young and Choi Doo-Hyun (Seoul Nat'l Univ., KOREA)</i>	
Design of IM Control System for Industrial Sewing Machines	1636
<i>Hwang Dae-kyu, Oh Tae-Seok and Kim Il-Hwan (Kangwon Nat'l Univ., KOREA)</i>	
Realization of a Remote Management System for Process Inspection of Chip-Mounter	1640
<i>Lim Sun Jong (KIMM, KOREA) and Lyon Joon (Chungnam Nat'l Univ., KOREA)</i>	
Monitoring of discrete simulation and workflow events using virtual environments	1646
<i>Quick Jochen Manfred (NTU, SINGAPORE) and Quick Jochen Manfred (NTU, SINGAPORE)</i>	
Improvement of Optical Disk Controller Using a MEMS Accelerometer	1651
<i>Choi Keeyoung, Kim Sunghye (Inha Univ., KOREA) and Chung Jintai (Hanyang Univ., KOREA)</i>	

FE05 : Robot System IV

- Self Contained Wall--Climbing Robot with Closed Link Mechanism** 1657
Kang Taehun, Park Jaejun, Kim Hyungsuk and Choi Hyoukryeol (Sungkyunkwan Univ., KOREA)
- A Paraconsistent Robot** 1663
Almeida Prado Jose Pacheco (Paulista Univ., BRAZIL) and Almeida Prado Jose Pacheco (Paulista Univ., BRAZIL)
- Probabilistic localization of the service robot by map-matching algorithm** 1667
Lee Dong Heui, Chung Woojin and Kim Munsang (KIST, KOREA)
- Research of soccer robot system strategies** 1673
Sugisaka Masanori, Kiyomatsu Toshiro and Hara Masayoshi (Oita Univ., JAPAN)
- Design of a Control Architecture for an Internet-based Robot Control System** 1677
Nguyen To Dong, Oh Sang-Rok, You Bum Jae, Hwangbo Myung (KIST, KOREA) and Lee Brian Kwang-Ho (UIUC, USA)

FE06 : Intelligent Control I

- Chaotic System Control Considering Edge of Chaos Using Neural Network** 1683
Obayashi Masanao (Yamaguchi Univ., JAPAN), Umesako Kosuke (DYamaguchi Univ., JAPAN) and Nakayama Daisuke (Yamaguchi Univ., JAPAN)
- Implementing Path-Finding Agents for Simulation Environments** 1689
Oh Sang-Keon, Kim Chang-Hyun and Lee Ju-Jang (KAIST, KOREA)
- Co-Evolution Algorithm for Solving Multi-Objective Optimization Problem** 1693
Kim Ji-Youn, Lee Dong-Wook and Sim Kwee-Bo (Chungang Univ., KOREA)
- A study of generation alternation model in genetic algorithm** 1698
Ito Minoru and Sugisaka Masanori (Oita Univ., JAPAN)
- A Paraconsistent Multi-Agent System** 1702
Almeida Prado Jose Pacheco and Freitas Ricardo Luis (Paulista Univ., BRAZIL)
- A study on a collective behavior of interacting simple robots** 1707
Sugawara Ken, Sano Masaki and Watanabe Toshinori (Univ. of Electro Communications, JAPAN)

FE07 : Information Network I

- Parallel FFT and Quick-Merge Sort on the Reflective Memory Networked Computers and a Cluster of Workstations** 1711
Lee Changhun and Kwon Wook Hyun (Seoul Nat'l Univ., KOREA)
- Real-Time Response at Motion Control** 1717
Ha Young Youl, Han Sung Ho, Woo Gap Joo and Kim Jae Hoon (Samsung Heavy Industries Co. Ltd., KOREA)
- Implementing Embedded systems with ORB for Distributed Control Systems** 1722
Kim Kangsoo, Ryou Myungsun and Kwon Wookhyun (Seoul Nat'l Univ., KOREA)

- DCS Design Method based on CAN₂'s RTR** 1727
Kim Hyoung Yuk and Park Hong Seong (Kangwon Nat'l Univ., KOREA)
- Complex Dynamical Networks: An Overview** 1733
Chen Guanrong (Hong Kong City Univ., HONG KONG) and Chen Guanrong (Hong Kong City Univ., HONG KONG)

FM01 : Poster Session

- Development of a measurement device of water level at the bottom of fuel tanks using an optical cable sensor.** 1734
Kim Hiesik and Lee Byoungsuk (University of Seoul, KOREA)
- Development of an Algorithm to Measure the Road Traffic Data Using Video Camera** 1738
Kim HieSik and Kim JinMan (University of Seoul, KOREA)
- Simultaneous Multi-Channel Sensor System for Gas Flow Measurement** 1742
Kim Young Han and Joung Ok Jin (Dong-A Univ., KOREA)
- Soft Linearization of Array-Sensor Characteristics Based on Fuzzy Logic** 1747
Na Seung You, An Myung Kook, Shin Dae Jung and Lee Heyoung (Chonnam Nat'l Univ., KOREA)
- Tool Condition Monitoring Based on Wavelet Transform** 1752
Jeon Doyoung, Lee Gun and Kim Kyungho (Sogang Univ., KOREA)
- Robust Adaptive Beamforming Using Bayesian Beamformer : A Review** 1757
Lee Hyun-Seok (Inha Univ., KOREA), Yoo Kyung-Sang (Doowon Tech College, KOREA), Ryu Hee-Seob and Kwon Oh-Kyu (Inha Univ., KOREA)
- Modular Failure Diagnosis for Discrete Event Systems** 1763
Kim HeePyo, Park JoonHyo, Lee DongHoon and Lee Suk (Pusan Nat'l Univ., KOREA)
- A New Adaptive Image Separation Scheme using ICA and Innovation Process with EM** 1769
Kim Sung-Soo, Ryu Jeong-Woong and Oh Bum-Jin (Chungbuk Nat'l Univ., KOREA)
- Fault Feature Clarification in the Residual for Fault Detection and Diagnosis of Control Systems** 1773
Lee Jonghyo and Lyou Joon (Chungnam Nat'l Univ., KOREA)
- Inspection of Calandria Reactor Area of Wolsung NPP using Thermal Infrared and CCD Images** 1778
Cho JaiWan, Kim ChangHoi, Seo YongChil, Choi YoungSoo and Kim SeungHo (KAERI, KOREA)
- A Study on Extraction of the Center Point of Steam Generator Tubes of YoungKwang Nuclear Power Plant** 1784
Cho JaiWan, Kim ChangHoi, Seo YongChil, Choi YoungSoo and Kim SeungHo (KAERI, KOREA)
- Development of an Image Processing Hardware for Detecting Defects on the surface of the High Speed Moving Plate** 1790
Jang Sejeong, Boo Kwangsuck, Song Jeonghoon (Inje Univ., KOREA) and Lee Seungyoung (AutoEn Co. Ltd, KOREA)
- A Study on Wire Rope Flaws Signal Processing using Discrete Wavelet Transform** 1796
Min Jeong Tak, Lee Jin Woo and Lee Kwon Soon (Dong-A Univ., KOREA)

Fault Detection of an Intelligent Cantilever Beam with Piezoelectric Materials	1800
<i>Kwon Tae-Kyu, Lim Suk-Jeong, Yu Kee-Ho and Lee Seong-Cheol (Chonbuk Univ., KOREA)</i>	
Vibration Measurements of an Intelligent Cantilever Beam in Contact with Fluid	1806
<i>Kwon Tae-Kyu, Choi Seong-Hwa, Yu Gye-Hyoung and Lee Seong-Cheol (Chonbuk Univ., KOREA)</i>	
Pose Estimation of an Object from X-ray Images Based on Principal Axis Analysis	1812
<i>Roh Young Jun and Cho Hyung Suck (KAIST, KOREA)</i>	
A neural network based sensor modeling for 6-DOF motions of objects	1818
<i>Park Won Shik and Cho Hyungsuck (KAIST, KOREA)</i>	
Development of Flexible Tactile Sensor Array	1824
<i>Kim Hyungtae, Jung Kwangmok, Lee Kyungsub, Nam Jaedo and Choi Hyoukryeol (Sungkyunkwan Univ., KOREA)</i>	
Transient oscilaltion analysis for MEMS resonant accelerometer	1830
<i>Sung Sangkyung, Lee Jang Gyu (Seoul Nat'l Univ., KOREA), Kang Taesam (Konkuk Univ., KOREA), Sung Woon Tahk and Hyun Chul (Seoul Nat'l Univ., KOREA)</i>	
Feature matching for Omnidirectional Image based on Singular Value Decomposition	1835
<i>Kim Do-Yoon, Lee Young Jin and Chung Myung Jin (KAIST, KOREA)</i>	
Road Lane Segmentation using Dynamic Programming for Active Safety Vehicles	1841
<i>Kang Dong Joong, Kim Jin-Young, An Hyung-keun (Tongmyong Information Univ., KOREA), Ahn In-Mo (Masan College, KOREA) and Lho Tae-Jung (Tongmyong Information Univ., KOREA)</i>	
Feature Extraction and Classification of Natural Landmarks for Navigation of Mobile Robots	1847
<i>Kim Young-geun, Choi Changmin, Kim Hakil and Huh Ukyoul (Inha Univ., KOREA)</i>	
A research on the auto tracking and auto zooming modules for active camera	1853
<i>Kim Young-Ouk and Sung Ha-Gyeong (Korea Electronics Technology Institute, KOREA)</i>	
Visual Tracking System for Arbitrary Shaped Moving Objects	1859
<i>Han Kyu Bum (POSCO, KOREA) and Baek Yoon Su (Yonsei Univ., KOREA)</i>	
Development of Pipe-Inspection System Using Computer Vision	1863
<i>Park Chan-ho, Lee Byungryoung, Yang Soonyoung, Ahn Kyungkwan (Ulsan Univ., KOREA) and Oh Hyunog (Boogook Industries Co., KOREA)</i>	
Recognition of Patterns and Marks on Monitor Glass Panel	1868
<i>Ahn In-Mo (Masan College, KOREA), Kang Dong-Joong (Dongmyong Information Univ., KOREA) and Lee Kee-Sang (Dankook Univ., KOREA)</i>	
Detection and Tracking of Moving Objects using Correlation Match Method and Artificial Neural Network	1873
<i>Hong Sangwoo, Lee Minjung and Choi Youngkiu (Pusan Nat'l Univ., KOREA)</i>	
Tracking Robot Control of 2D Moving Target by a Robot Vision	1876
<i>Kim Dong Hwan, Jeon Byoung-Joon and Hong Young-Ho (Tech. Seoul Nat'l Univ., KOREA)</i>	
A object tracking based robot manipulator built on fast stereo vision	1880
<i>Huang hua and Won sangchul (POSTECH, KOREA)</i>	
A real-time Universal inside parking system : by Applying 3D-scene Interoretation and Motion Analysis	1883
<i>Lee Changheun (Dong-A Univ., KOREA) and Ahn Doehyon (Pukyung Nat'l Univ., KOREA)</i>	
VISUAL SERVO CONTROL OF A MOBILE MANIPULATOR USING NEURAL NETWORK ALGORITHM	1887
<i>Joo Won Dong, Park Min Gyu and Lee Min Cheol (Pusan Nat'l Univ., KOREA)</i>	

A New Landmark-Based Visual Servoing with Stereo Camera for Door Opening	1892
<i>Han Myoung-Soo, Lee Soon Geul (Kyunghee Univ., KOREA), Park Sung-Kee and Kim Munsang (KIST, KOREA)</i>	
Real time tracking of multiple humans for mobile robot application	1897
<i>Choi Joon Hyuk, Park Byung Soo, Lee Seok (Seoul Nat'l Univ., KOREA), Park Sung-Kee and Kim Munsang (KIST, KOREA)</i>	
Face Detection and Recognition with Multiple Appearance Models for Mobile Robot Application	1903
<i>Lee Taigun (Yonsei Univ., KOREA), Park Sung-Kee and Kim Munsang (KIST, KOREA)</i>	
Development of Merging Algorithm between 3-D Objects and Real Image for Augmented Reality	1909
<i>Kang Dong-Joong (Tongmyong Univ., KOREA) and Kang Dong-Joong (Tongmyong Univ., KOREA)</i>	
Development of a Washout Algorithm Using the Signal Compression Method	1915
<i>Kang Eu Gene, You Ki Sung and Lee Min Cheol (Pusan Nat'l Univ., KOREA)</i>	
Direct Input device based on Augmented Reality	1920
<i>Kim Keunyoung, Kang Hyunjae and Kim Kyunghwan (KIST, KOREA)</i>	
Graphic Simulator of Master/Slave Manipulator in Virtual Hot Cell	1926
<i>Kim Sung Hyun, Song Tae Gil, Lee Jong Yul and Yoon Ji Sup (KAERI, KOREA)</i>	
A realization Fuzzy PI and Fuzzy PD Controller using a compensation Fuzzy Algorithms	1931
<i>Kim Seung Cheol (Dong-A Univ., KOREA), Choo Yeon Gyu (Chin-Ju Nat'l Univ., KOREA), Kang Shin Chul (Nam-Hae College), Lim Young Do, Choi Boo Kwi and Lee Ihn Yong (Dong-A Univ., KOREA)</i>	
Vehicle Simulator and it's Lateral Control by the Dead-Reckoning Positioning	1935
<i>Song Hyo Shin, Choi Ju Yong, Eum Sang In, Ha Seong Ki (Pusan Nat'l Univ., KOREA), Bae Jong Il (Pukyong Nat'l Univ., KOREA) and Lee Man Hyung (Pusan Nat'l Univ., KOREA)</i>	
Lateral Control of Vehicles Using Vision System	1940
<i>Kim Eun Joo, Kim Chang Sub, Ha Sung Gi (Pusan Nat'l Univ., KOREA), Yoon Kang Sub (Daegu Univ., KOREA) and Lee Man Hyung (Pusan Nat'l Univ., KOREA)</i>	
A Hybrid Modeling Architecture; Self-organizing Neurofuzzy Networks	1944
<i>Park Byoungjun and Oh Sungkwun (Wonkwang Univ., KOREA)</i>	
Design of improved Mult-FNN for Nonlinear Process modeling	1950
<i>Park Hosung and Oh Sungkwun (Wonkwang Univ., KOREA)</i>	
Immune Based Intelligent Tuning of the 2-DOF PID Controller for Thermal Power Plant	1956
<i>Kim Dong Hwa (Hanbat Nat'l Univ., KOREA) and Kim Dong Hwa (Hanbat Nat'l Univ., KOREA)</i>	
Deadzone Compensation of Positioning Systems using Fuzzy Logic	1962
<i>Son Minkyong, Jang Jun Oh, Lee Pyeong Gi, Park Sang Bae, Ahn In Seok and Lee Sung Hwan (Uiduk Univ., KOREA)</i>	
Program Development of Emotional Human and Computer Interface	1968
<i>jung seul and Cho Kiho (Chungnam Nat'l Univ., KOREA)</i>	
Auto-Tuning Of Reference Model Based PID Controller Using Immune Algorithm	1972
<i>Kim Dong Hwa (Hanbat Nat'l Univ., KOREA) and Kim Dong Hwa (Hanbat Nat'l Univ., KOREA)</i>	
Adaptive Image Enhancement Filter Design using FPGA and Handel-C	1978
<i>Wee Jae Woo, Song Seung Min, Song Min kyu, Jung Je Gyo, Lee Seung Young, Lee Chong Ho and Lee Phill Kyu (Inha Univ., KOREA)</i>	

Self Learning Fuzzy Sliding Mode Controller for Nonlinear System	1984
<i>Seo Sam Jun (Anyang Univ., KOREA) and Kim Dong Sik (Soonchunhyang Univ., KOREA)</i>	
Newly Expanded and Truncated Learning Algorithm for Optimal Synthesis of Binary Neural Network	1990
<i>Yun Ki-Young, Jeong Jongwon (Donga Univ., KOREA), Sung Sangkyu (Department of Korea Aerospace Industries, KOREA) and Lee Jontark (Donga Univ., KOREA)</i>	
A Design of Neural Network Predictive PID Controller for an Automatic Driving of Stacking Crane	1995
<i>Sohn Dong Seop, Lee Jin Woo and Lee Kwon Soon (Dong-A Univ., KOREA)</i>	

FM02 : Poster Session

Singularity and manipulability analysis of a wheeled mobile manipulator	2001
<i>Kim Sungbok and Lee Jaeyoung (Hankuk Univ. of Foreign Studies)</i>	
A Study on Indoor Mobile Robot Navigation Used Space and Time Sensor Fusion	2007
<i>JIN Tae-Seok, KO Jae-Pyung and LEE Jang-Myung (Pusan Nat'l Univ., KOREA)</i>	
System Design and Control of an Autonomous Stair Climbing Robot	2013
<i>Kim Dong Hwan, Hong Young-Ho (Seoul Nat'l Univ., KOREA), Kim Sangsu (APL Co. Ltd, KOREA) and Jwa Geun Ho (Woosim System Inc., KOREA)</i>	
Dynamic Output Feedback Regulation of Robots with Flexible Joints	2017
<i>Son Young I. (Dong-A Univ., KOREA), Shim Hyungbo (Hanyang Univ., KOREA), Jo Nam H. (Soongsil Univ., KOREA) and Seo Jin H. (Seoul National Univ., KOREA)</i>	
Configuration Control of a Redundant Manipulator Optimizing Stiffness and Joint Torque	2023
<i>Jin Jaehyun, Ahn Sungho, Jung Jaehoo and Yoon Jisup (KAERI, KOREA)</i>	
OHT System for 300mm wafer cassette transfer	2028
<i>Lee Sunghyun, Kim Jinki and Sung Hakkyung (Samsung Electronics Co. Ltd., KOREA)</i>	
An Obstacle Avoidance Trajectory Planning for a Quadruped Walking Robot Using Vision and PSD sensor	2030
<i>Kong Jung-Shik (Inha Univ., KOREA), Lee Bo-Hee (Semyung Univ., KOREA) and Kim Jin-Geol (Inha Univ., KOREA)</i>	
Stability Analysis of a Biped Walking Robot with Foot Rotation Indicator	2036
<i>Noh Kyung-Kon (Inha Univ., KOREA), Lee Bo-Hee (Semyung Univ., KOREA) and Kim Jin-Geol (Inha Univ., KOREA)</i>	
The Position Control of Stroke Sensing Cylinder for Automatic Excavation	2041
<i>Son Ku Young, Kim Sung Su, Yang Soon Yong, Lee Byung Ryong and Ahn Kyung Kwan (Ulsan Univ., KOREA)</i>	
The Tele-operated Mobile Robot Kaerot/m2 for Nuclear Power Plants	2045
<i>Kim Chang Hoi, Seo Yong Chil, Cho Jai Wan, Kim Seungho and Choi Young Soo (KAERI, KOREA)</i>	
Digital Polymer Motor	2050
<i>Lee SangWon, Kwak Jongwon, Jung Kwangmok, Cho Sunghwi, Kim Hunmo, Jeon Jaewook, Nam Jaedo and Choi Hyoukryeol (Sungkyunkwan Univ., KOREA)</i>	
Developement of an autonomous biped walking robot	2056
<i>choi choi, hyeung-sik, Oh jeong-min, Kim young-sik and Baek chang-yul (Korea maritime univ., KOREA)</i>	
Estimating reliability of reactor inspection robot using Bayesian Belief Nets	2060

<i>Eom Heung Seop and Kim Jae Hee (Korea Atomic Energy Research Institute, KOREA)</i>	
A Study on Off-Line Programming of Robot Path for Footwear Bonding Automation	2066
<i>Lho Tae-Jung, Che Woo-Sung, Kang Dong-Jung, Song Se-Hoon and Cho Seong-Ji (Tongmyoung Information Univ., KOREA)</i>	
Embodiment of effective Multiple-robot control algorithm using Petri-Net	2070
<i>Sun Seoung-Won, Choi Jin-Ho, Chung Chae-Wook and Kuc Tae-Yong (Sung Kyun Kwan Univ., KOREA)</i>	
Embodiment of Simultaneous Localization of Mobile Robot Using Multisensor Combination.	2076
<i>Choi Jin-Ho, Sun Seoung-Won and Kuc Tae-Yong (Sung Kyun Kwan Univ., KOREA)</i>	
A Navigation Algorithm for Autonomous Mobile Robots Using Artificial Immune Networks and Neural Networks	2081
<i>Kim Insic, Lee Minjung and Choi Youngkiu (Pusan Nat'l Univ., KOREA)</i>	
Trajectory Control of Robotic Manipulator using Fuzzy Computed Torque Method	2086
<i>Kang Donghee, Lee Minjung and Choi Youngkiu (Pusan Nat'l Univ., KOREA)</i>	
Implementation and Motion Control of Three Linkage Bar Fingers	2091
<i>jungs seul, kim jeonggu and kim sungsu (Chungnam Nat'l Univ., KOREA)</i>	
A Study On a Lane Keeping Control in a Curved Road and Lane Changing Method to Avoid Collision of a Vehicle	2095
<i>Lee seungchul, Boo Kwangsuck and Song Jeonghoon (Inje Univ., KOREA)</i>	
Indoor Navigation for the mobile robot	2101
<i>Lee Woo Young (Inha Univ., KOREA), Huh Deijeung, Huh Ukyoul (Inha Univ., KOREA.) and Kim Hakil (Inha Univ., KOREA)</i>	
Gait Pattern Generation Algorithm for a Biped Robot with Toes	2106
<i>Min Kwan Sik, Ahn Cheol Ki and Lee Min Cheol (Pusan Nat'l Univ., KOREA)</i>	
Manipulability Analysis of a New Parallel Rolling Mill Based upon Two Stewart Platforms	2112
<i>Lee Jun-Ho and Hong Keum-Shik (Pusan Nat'l Univ., KOREA)</i>	
Synthetic feedback information construction to control a Networked Robot	2119
<i>Hong Soon-Hyuk and Jeon Jae Wook (Sungkyunkwan Univ., KOREA)</i>	
Path-Planning for Cleaning Robot Using a Wall Tracing	2125
<i>Jung kwang sik, No Yong Jun, Lim Young Cheol and Ryoo Young Jae (Chonnam Nat'l Univ., KOREA)</i>	
Object recognition system using an ultrasonic sensor array for autonomous mobile robots.	2129
<i>Kim suil, Choi Byungjun, Park Sehoon, Lee Yunjung and Lee Sangryong (Kyungpook Nat'l Univ., KOREA)</i>	
Zigzag gait of a Quadruped Walking robot with waist joint	2135
<i>park se hoon and lee yun jung (Kyungpook Nat'l Univ., KOREA)</i>	
A Study on Stable Grasping Control of Dual-Fingers with Soft-Tips	2140
<i>Sim Jae-Goon, Yang Soon-Yong (Ulsan Univ., KOREA), Han Hyun-Yong (Choonhae College, KOREA), Lee Byung-Ryon, Ahn kyung-Kwan, Kim Sung-Su and Park Kyung-Taek (Ulsan Univ., KOREA)</i>	
Two-Degrees-Of-Freedom Internal Model Position Control for Slave Manipulator Teleoperated by Master Arm	2146
<i>PARK BYUNG-SUK, KIM DONG-GI, JIN JAE-HYUN, AHN SUNG-HO, SONG TAE-GIL and YOON JI-SUP (Korea Atomic Energy Research Institute, KOREA)</i>	
Modeling and Simulation of Nanorobotic Manipulation with an AFM probe	2151

- Kim Deok-Ho, Park Jungyul, Kim Byungkyu (KIST, KOREA) and Kim Kyunghwan (Wooshin Mechatronics Co. Ltd, KOREA)*
- Precise contact force control of a flip chip mounting head system** 2157
- Shim Jaehong (Korea Polytechnic Univ., KOREA), Cho Youngim (Pyungtaek Univ., KOREA) and Oh Yeontaek (Samsung Electronics Co. Ltd, KOREA)*
- A HILS system and its application on collision detection of an industrial robots** 2161
- Song Ji-Heuk, Lee Sang-Hun and Hur Jong-Sung (Hyundai Heavy Industries Co. Ltd, KOREA)*
- Fast Color Classifier Using Neural Networks in RGB and YUV Color-Space** 2166
- Lee Seonghoon, Lee Minjung and Choi Youngkiu (Pusan Nat'l Univ., KOREA)*
- A Virtual Machine for a Modularized Personal Robot Controller** 2170
- Yang Kwang Woong, Kim Hongseok (KITECH, KOREA) and Park Jaehyun (Inha Univ., KOREA)*
- Visual Servoing Control of a Docking System for an Autonomous Underwater Vehicle (AUV)** 2174
- Lee Pan-Mook, Jeon Bong-Hwan, Lee Chong-Moo (KRISO-KORDI, KOREA), Hong Young-Hwa and Oh Jun-Ho (KAIST, KOREA)*
- Fuzzy system construction based on Genetic Algorithms and fuzzy clustering** 2180
- Kwak Keun-Chang, Kim Seoung-Suk, Ryu Jeong-Woong and Chun Myung-Geun (Chungbuk Nat'l Univ., KOREA)*
- A novel Neuro Fuzzy Modeling using Gaussian Mixture Models** 2185
- Kim Sung Suk, Kwak Keun Chang, Kim Sung Soo, Chun Myung Geun and Ryu Jeong Woong (Chungbuk Nat'l Univ., KOREA)*
- An Evolutionary Algorithm preventing Consanguineous Marriage** 2190
- Oh Woojin and Oh Se-Young (POSTECH, KOREA)*
- A New Lane Departure Warning System using a Support Vector Machine Classifier and a Fuzzy System** 2194
- Kim Sam Yong and Oh Se Young (POSTECH, KOREA)*
- Multiobjective fuzzy control system using reinforcement learning** 2199
- Dong-Oh Kang (ETRI, KOREA) and Zeungnam Bien (KAIST, KOREA)*
- Maneuvering Target Tracking Using Intelligent Control Techniques** 2205
- Lee Bum-Jik (Yonsei Univ., KOREA), Joo Young-Hoon (Kunsan Nat'l Univ., KOREA) and Park Jin-Bae (Yonsei Univ., KOREA)*
- Wavelet-Based Fuzzy System Modeling using mGA** 2210
- Yu Jin Young, Kim Jung Chan, Lee Yeun Woo, Joo Young Hoon (Kunsan Nat'l Univ., KOREA) and Park Jin Bae (Yonsei Univ., KOREA)*
- Emotion Recognition Using Eigenspace** 2216
- Lee Sang Yun, Oh Jae-Heung, Chung Geun-Ho, Joo Young-Hoon (Kunsan Nat'l Univ., KOREA) and Sim Kwee-Bo (Chung-Ang Univ., KOREA)*
- Development Of Temperature control system for kimchi-refrigerator using fuzzy logic** 2221
- jung kwang sik, no young jun, lim young chel, ryoo young jae (Chonnam Nat'l Univ., KOREA) and ahn min tae (Mokpo Nat'l Univ., KOREA)*
- Co-Evolution Algorithm of Subsumption Architecture for Behavior Learning** 2225
- Kim HyunYoung, Sim KweeBo and Lee DongWook (Chung-Ang Univ., KOREA)*
- Fuzzy Modeling for Data Mining Using Information Granules** 2229
- Kim Do Wan, Kim Moon Hwan (Yonsei Univ., Korea), Joo Young Hoon (Kunsan Nat'l Univ., Korea) and Park Jin Bae (Yonsei Univ., Korea)*

- Knowledge Discovery in Product Development and Manufacturing: Application of Process Analysis, Control and Diagnosis using MD & KDD** 2235
Kim Sungshin (Pusan National University, Pusan, Korea), Woo Kwang Bang (Yonsei University), Bae Hyeon, Jung Jae-Ryong and Woo Young Kwang (Pusan National University)

SA01 : Industrial Application II

- Development of A Hybrid Type Electronic Brake System(EBS)** 2241
Lim Chulki, Boo Kwangsuck, Song Jeonghoon and Hong Soonyoung (Inje Univ., KOREA)
- Development of a Real-Time Vehicle Dynamic Model for a Tracked Vehicle Driving Simulator** 2247
Lee Ji-Young, Lee Woon-Sung (Kookmin Univ., KOREA) and Lee Ji-Sun (InnoSimulation Inc., KOREA)
- Preview Control of High Mobility Tracked Vehicle Suspension with multiple wheels** 2253
Kim Yoonsun and Park Youngjin (KAIST, KOREA)
- Design of Hydraulic Control Systems for a Disc Spinning Machine** 2259
Park Geun-Seok, Lim Jun-Young, Kang E-Sok (Chungnam Nat'l Univ., KOREA) and Kang Jung-Sik (KIMM, KOREA)
- Red Light Running Enforcement System Using Real Time Individual Vehicle Tracking** 2264
Lim Dae-Woon, Jun Joon-Suk and Choi Sung-Hoon (LG Industrial Systems Co. Ltd., KOREA)

SA02 : Teleoperation

- A Controller Design for Teleoperated Systems with Signal Transmission Time Delay** 2268
Ahn Sung Ho, Jin Jae Hyun, Park Byung Suk and Yoon Ji Sup (KAERI, KOREA)
- A Study on a workpiece characteristic identification in a force feedback teleoperation** 2273
Oh Chaeyoun (Chonbuk Nat'l Univ., KOREA), Kim Kiho, Park JangJin (KAERI, KOREA) and Kwon Hyokjo (Chonbuk Nat'l Univ., KOREA)
- A Force-Force Control Technique of a Teleoperation system for Wiping Work** 2279
Oh Chaeyoun, Jun JiMyung, Kwon Hyokjo (Chonbuk Nat'l Univ., KOREA), Oh Heegeun (KRISS, KOREA) and Kim Kiho (KAERI, KOREA)
- Development of an Embedded Vision Platform for Internet-based Robot Control** 2285
Kim Tae-Hee and Jeon Jae Wook (Sungkyunkwan Univ., KOREA)
- Improved Image Feedback Scheme for the Control of Telerobotics Equipment** 2291
Lee Jong Kwang, Kim Byeong Nyeon, Kang E-Sok (Chungnam Nat'l Univ., KOREA) and Yoon Ji Sup (KAERI, KOREA)
- Adaptive Scaling Based on Vision in Micromanipulation** 2295
Lee Jaehoon, Park Jong-Oh (KIST, KOREA), Yoon Pil Sang, Lee Seok Joo (Korea Univ., KOREA), Park Jong Hyeon (Hanyang Univ., KOREA) and Kim Kyunghwan (Wooshin Mechatronics Co. Ltd., KOREA)

SA03 : Personal Robot

- Evaluation of Performances for Personal Robots** 2301
Ahn Chang-hyun, Kim Jin-Oh, Yi Keon Young (Kwangwoon Univ., KOREA) and Kim Jin-Oh (KATS, KOREA)
- Toward the Personal Robot Software Framework** 2307
Kim Hong Ryeol, Kim Dae Won (Myongji Univ., KOREA), Kim Hong Seok and Lee Ho Gil (KITECH, KOREA)
- Development of Personal Robot Platform : Designed Approach for Modularization** 2313
Roh Se-gon, Baek S. M, Lee D. H, Park K. H, Moon T. K, Ryew S. W, Kuc T. Y, Kim H. S, Lee H. G and Choi H. R (Sungkyunkwan Univ., KOREA)
- Stationary position control of a wheeled blimp** 2319
Nam Mihee, Kang Sungchul, Yoon Seong-sik (KIST, KOREA) and Tsubouchi Takashi (Univ. of Tsukuba, JAPAN)
- Mobility Analysis of Closed-Chain Mechanisms with Lack of Geometric Generality** 2323
YI Byung-ju, YI Dong (Hanyang Univ., KOREA) and Kim Wheekuk (Korea Univ., KOREA)
- Functionally Distributed Modular Robot System using Virtual Machine** 2330
Ryu sinwook, Yang kwangwoong, Kim hongseok and Lee hogil (KITECH, KOREA)

SA04 : Manufacturing II

- Distributed Control with Varying Time Delay in Virtual Device Network** 2336
Song Kiwon, Kim Jonghwi, Choi Gi Sang (Univ. of Seoul, KOREA) and Choi Gi Heung (Hansung Univ., KOREA)
- Position Control of Linear Actuator with Uncertain Time Delay in VDN** 2341
Kim Jonghwi, Song Kiwon, Choi Gi Sang (Univ. of Seoul, KOREA) and Choi Gi Heung (Hansung Univ., KOREA)
- Development of a Real-Time Error Detection System for an Electronic Jacquard** 2345
Huh Jae-Yeong and Seo Chang-Jun (Inje Univ., KOREA)
- Development of an Eddy Current Type Magnetic Floor Hinge** 2350
Lee Kapjin, Kim Chulsoo and Park Kyihwan (KJIST, KOREA)
- Design of Robot Direct-Teaching Tool and its Application to Path Generation for Die Induction Hardening** 2356
Ahn Jae-Hyung, Kang Sungchul, Cho Changhyun (KIST, KOREA), Hwang Jisun and Suh Mansuk (HMC, KOREA)

SA05 : Service Robot

- Development of a Guide Service Mobile Robot** 2361
Park Tong-Jin, Han Chang-Soo and Jang Jae-Ho (Hanyang Univ., KOREA)
- Design and Control of a Passive Compliant Joint for Human-friendly Service Robots** 2367
Yoon Seong-Sik, Kang Sungchul, Kim Seung-Jong, Kim Munsang (KIST, KOREA), Yim Heung-Soon and Kim Young-Hwan (Hyundai Heavy Industries Co. Ltd., KOREA)

- Experimental Evaluation of a Surgical Robot System (ARTHROBOT) for Hip Surgery using Sawbones and Pig Femurs** 2373
Ko Seong-Young, Kim Jonathan, Chung Jong-Ha, Kwon Dong-Soo, Lee Jung-Ju, Yoon Yong-San (KAIST, KOREA) and Won Chung-Hee (Chunbuk Nat'l Univ., KOREA)
- Control Architecture Design and Integration of the Autonomous Service Robot PSR** 2379
Kim Gunhee, Chung Woojin, Kim Munsang and Lee Chongwon (KIST, KOREA)
- The Dynamic modeling and Analysis for Redundantly Actuated Omni-directional Mobile Robots** 2385
Yi Byung-Ju, Chung Jae Heon (Hanyang Univ., KOREA), Park Tae Bum (LG Industrial Systems Co. Ltd., KOREA), Kim Whee Kuk (Korea Univ., KOREA), Chung Yong Ho, Kwon Ki hyun and Lim Kye-Young (LG Industrial Systems Co. Ltd., KOREA)
- An Interactive Robotic Cane for Blind Travelers** 2391
Shim Inbo and Yoon Joongsun (Pusan Nat'l Univ., KOREA)

SA06 : Intelligent Control II

- An Interactive Approach based on Genetic Algorithm Using Hidden Population and Simplified Genotypes for Avatar Synthesis** 2397
Lee Jayong, Lee Janghee and Hoon Kang (Chungang Univ., KOREA)
- Intelligent Control by Immune Network Algorithm Based Auto-Weight Function Tuning** 2403
Kim Dong Hwa (Hanbat Nat'l Univ., KOREA) and Kim Dong Hwa (Hanbat Nat'l Univ., KOREA)
- A Design of Adaptive Steering Controller of AGV using Immune Algorithm** 2409
Lee Chang Hoon (Donga Univ., KOREA), Lee Jin Woo (Donga Univ., KOREA), Lee Kwon Soon (Donga Univ., KOREA) and Lee Young Jin (KAPC, KOREA)
- The Control of an Electrostrictive Polymer Actuator by Using Neural Network.** 2413
Youn Ji Won, Jeon Jae Wook, Nam Jae Do, Choi Hyoukryeol and Kim Hunmo (Sungkyunkwan Univ., KOREA)
- Design of State machine using Evolvable Hardware and Genetic Algorithm Processor** 2418
Kim Tae Hoon, Lee Dong-Wook and Sim Kwee-Bo (Chungang Univ., KOREA)
- Application of rule based expert system to GDS (Grating automatic Drawing System)** 2422
Lee Su Hyoun and Cho Tae Ho (Sungkyunkwan Univ., KOREA)

SA07 : Information Network II

- FPGA Implementation of Multi Joints Position Control Processor with Pipeline Structure** 2427
Ha Young Youl, Lee In Ho, Kim Min Soo and Kim Jae Hoon (Samsung Heavy Industries Co. Ltd., KOREA)
- Using UDP/IP over Ethernet for Trasmision of Industrial Real-Time packet** 2432
Kim SungSuk, Hwang Chong-Sun (Korea Univ., KOREA), Lee BoKyung and Shim JaeHong (Korea Polytechnic Univ., KOREA)
- UPS management system in the HFC network** 2436
Kim Young-Wha and Kang Jun-Woo (Hankuk Univ. of Foreign Studies, KOREA)

- Development of Message Gathering System for digital electronic switching systems** 2440
Shin seung sik, Lee Seung whan, Chung Chan soo (Soongsil Univ., KOREA), Yoo Bong sun and Kim Hoon hak (Induk Institute of Tech., KOREA)
- XML-based Remote Monitoring System Using Fuzzy Control and Image Processing** 2446
Oh Tae Geun, Kim Hyoung Bae and Nam Boo Hee (Kangwon Nat'l Univ., KOREA)
- Transmission Characteristics in LonWorks/IP-based Virtual Device Network (II)** 2452
Choi Gi Heung (Hansung Univ., KOREA), Song Ki Won, Kim JongHwi and Choi Gi Sang (Univ. of Seoul, KOREA)