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Technical Program for Tuesday August 21, 2012

TuAS	Grand Ballroom II
Best Conference/Application Paper Award Competition (Regular Session)	
Chair: Lee, Tae-Eog	KAIST
Co-Chair: Kwon, Woong	Samsung Electronics
10:00-10:20	TuAS.1
<i>Enhanced Approach for Energy-Efficient Trajectory Generation of Industrial Robots</i> , pp. 1-7.	
Hansen, Christian	Leibniz Univ. Hanover
Öltjen, Julian	Leibniz Univ. Hanover
Meike, Davis	Daimler AG
Ortmaier, Tobias	Leibniz Univ. Hanover
10:20-10:40	TuAS.2
<i>On the Formal Verification of Routing in Material Handling Systems</i> , pp. 8-13.	
Klotz, Thomas	Fraunhofer Inst. for Integrated Circuits
Seßler, Norman	Fraunhofer Inst. for Integrated Circuits
Straube, Bernd	Fraunhofer Inst. for Integrated Circuits
Fordran, Eva	Fraunhofer Inst. for Integrated Circuits
Turek, Karsten	TU Dresden
Schönherr, Jens	Dresden Univ. of Applied Sciences
10:40-11:00	TuAS.3
<i>Simplified Factory Energy Management System Based on Operational Condition Estimation by Sensor Data (I)</i> , pp. 14-19.	
Endo, Maki	Omron Corp.
Nakajima, Hiroshi	Omron Corp.
Hata, Yutaka	Univ. of Hyogo
11:00-11:20	TuAS.4
<i>Automated Longwall Shearer Horizon Control Using Thermal Infrared-Based Seam Tracking (I)</i> , pp. 20-25.	
Ralston, Jonathon	CSIRO
11:20-11:40	TuAS.5
<i>Initial Experiments Toward Automated Robotic Implantation of Skew-Line Needle Arrangements for HDR Brachytherapy</i> , pp. 26-33.	
Garg, Animesh	Univ. of California, Berkeley
Siau, Timmy	Univ. of California, Berkeley
Berenson, Dmitry	Univ. of California, Berkeley
Cunha, J. Adam	Univ. of California, San Francisco
Hsu, I-Chow Joe	Univ. of California, San Francisco
Pouliot, Jean	Univ. of California, San Francisco
Stoianovici, Dan	Johns Hopkins Univ.
Goldberg, Ken	UC Berkeley
11:40-12:00	TuAS.6
<i>High-Speed Autofocusing of Multisized Microobjects (I)</i> , pp. 34-39.	
Nguyen, Chanh-Nghiem	Osaka Univ.
Ohara, Kenichi	Osaka Univ.
Takubo, Tomohito	Osaka City Univ.
Mae, Yasushi	Osaka Univ.
Arai, Tatsuo	Osaka Univ.

TuB1	Grand Ballroom II
Green Automation (Special Session)	
Chair: Tang, Ying (Gina)	Rowan Univ.
Co-Chair: Li, Congbo	Chongqing Univ.
13:00-13:20	TuB1.1
<i>Exploring a Solar Photovoltaic-Based Energy Solution for Green Manufacturing Industry</i> , pp. 40-45.	
Taboada, Heidi	Univ. of Texas at El Paso
Xiong, Zhenhua	Shanghai Jiao Tong Univ.
Jin, Tongdan	Teax State Univ.
Jimenez, Jesus	Texas State Univ.
13:20-13:40	TuB1.2
<i>Modeling Green Factory Physics – an Analytical Approach (I)</i> , pp. 46-51.	
Prabhu, Vittaldas	Penn State Univ.
Jeon, Hyun Woo	Pennsylvania State Univ.
Taisch, Marco	Pol. di Milano
13:40-14:00	TuB1.3
<i>Uncertainty Management in Remanufacturing: A Review (I)</i> , pp. 52-57.	
Tang, Ying (Gina)	Rowan Univ.
Li, Congbo	Chongqing Univ.
14:00-14:20	TuB1.4
<i>A New Operational Framework to Job Shop Scheduling for Reducing Carbon Emissions (I)</i> , pp. 58-63.	
Yi, Qian	Chongqing Univ.
Li, Congbo	Chongqing Univ.
Tang, Ying (Gina)	Rowan Univ.
Wang, Qifeng	Zhejiang Wanli Univ.
14:20-14:40	TuB1.5
<i>A Strategy-Proof and Budget Balanced Mechanism for Carbon Footprint Reduction by Global Companies</i> , pp. 64-69.	
Lavu, Udaya Lakshmi	IISc
Yadati, Narahari	Indian Inst. of Science
Bagchi, Deepak	Infosys
Biswas, Shantanu	Infosys Tech. Ltd.
Subrahmanya, S V	Infosys Tech. Ltd.
Suresh, P	Infosys Tech. Ltd.
Viswanadham, Nukala	Indian School of Business
TuB2	Namsan I
Process Control Automation (Special Session)	
Chair: Cheng, Fan-Tien	National Cheng Kung Univ.
Co-Chair: Morrison, James	KAIST
13:00-13:20	TuB2.1
<i>Managing Data for a Zero Defect Production – The Contribution of Manufacturing Automation to a Corporate Strategy</i> , pp. 70-73.	
Schmid, Gottfried	Infineon Tech. AG
Hanitzsch, Tilmann	Consultant
13:20-13:40	TuB2.2
<i>Sampling Decision System in Semiconductor Manufacturing Using Virtual Metrology (I)</i> , pp. 74-79.	
Kurz, Daniel	Alpen-Adria Univ. of Klagenfurt
De Luca, Cristina	Infineon Austria
Pilz, Jürgen	Alpen-Adria Univ. of Klagenfurt
13:40-14:00	TuB2.3
<i>Virtual-Metrology-Based FDC Scheme (I)</i> , pp. 80-85.	
Hsieh, Yao-Sheng	National Cheng Kung Univ.
Cheng, Fan-Tien	National Cheng Kung Univ.
Yang, Haw-Ching	National Kaohsiung First Univ. of Sci. and Tech.

14:00-14:20		TuB2.4
<i>Analysis of Defective Patterns on Wafers in Semiconductor Manufacturing: A Bibliographical Review (I)</i> , pp. 86-90.		
Yum, Bong-Jin		KAIST
Koo, Jaehoon	Korea Advanced Inst. of Science and Tech.	
Kim, Seong-Jun	Gangneung Wonju National Univ. (GWNU)	
14:20-14:40		TuB2.5
<i>Multistep Virtual Metrology Approaches for Semiconductor Manufacturing Processes (I)</i> , pp. 91-96.		
Pampuri, Simone		Univ. of Pavia, Italy
Schirru, Andrea		Univ. of Pavia, Italy
Susto, Gian Antonio		Univ. of Padova
Beghi, Alessandro		Univ. di Padova
De Nicolao, Giuseppe		Univ. of Pavia, Italy
Deluca, Cristina		Infineon Austria
TuB3		Namsan II
Automation in Micro/Nano Scale (Regular Session)		
Chair: Koo, Ja Choon		Sungkyunkwan Univ.
Co-Chair: Li, Yangmin		Univ. of Macau
13:00-13:20		TuB3.1
<i>A Model Reference Adaptive PID Control for Electromagnetic Actuated Micro-Positioning Stage</i> , N/A		
Xiao, Shunli		Univ. of Macau
Li, Yangmin		Univ. of Macau
Liu, Jinguo		Shenyang Inst. of Automation (SIA)
13:20-13:40		TuB3.2
<i>Tracking Control of a Compliant XY Nano-Positioner under Plant Uncertainty Using a Transfigured Loop-Shaping H_{∞} Controller</i> , pp. 103-108.		
Tang, Hui		Univ. of Macau
Li, Yangmin		Univ. of Macau
Yang, Qinmin		Zhejiang Univ.
13:40-14:00		TuB3.3
<i>A Vacuum-Pumped Microfluidic Device for Automated In-Line Mixing and Focusing Processes</i> , pp. 109-114.		
An-Shik Yang		National Taipei University of Tech.
Hao-Hung Huang		National Taipei University of Tech.
Li-Yu Tseng		National Taipei University of Tech.
Po-Hung Liu		National Taipei University of Tech.
Tsai-Lung Su		National Taipei University of Tech.
Chun-Lung Li		National Taipei University of Tech.
Huang, Hao-Hung	Department of Energy and Refrigerating Air-ConditioningEngineeri	
14:00-14:20		TuB3.4
<i>Automated Path Planning for Washing in Digital Microfluidic Biochips</i> , pp. 115-120.		
Mitra, Debasis		National Inst. of Tech. Durgapur, India
Ghoshal, Sarmishtha		Bengal Engg. & Sc. Univ. Shibpur
Rahaman, Hafizur		Bengal Engg. & Sc. Univ. Shibpur
Chakrabarty, Krishnendu		Duke Univ. Durham
Bhattacharya, Bhargab B.		Indian Statistical Inst. Kolkata
14:20-14:40		TuB3.5
<i>Design of a New Miniature Haptic Button Based on Magneto-Rheological Fluids</i> , pp. 121-124.		
Ryu, Semin		KAIST
Yang, Tae-Heon		KAIST
Kim, Sang-Youn		Korea Univ. Tech. & Education
Koo, Jeong-Hoi		Miami Univ.
Kyung, Ki-Uk		ETRI
Kwon, Dong-Soo		KAIST

TuB4		Namsan III
Healthcare Management Systems (Regular Session)		
Chair: Xie, Xiaolan		Ec. des Mines de Saint Etienne
Co-Chair: Tan, Kar Way		Singapore Management Univ.
13:00-13:20		TuB4.1
<i>Improving Patient Flow in Emergency Department through Dynamic Priority Queue</i> , pp. 125-130.		
Tan, Kar Way		Singapore Management Univ.
Wang, Chao		Singapore Management Univ.
Lau, Hoong Chuin		Singapore Management Univ.
13:20-13:40		TuB4.2
<i>Improving Discrete Event Simulation in Healthcare with Innovative and Robust Data Input Analysis Tools (I)</i> , pp. 131-136.		
Song, Jie		Peking Univ.
Hoerning, Steven		Univ. of Wisconsin-Madison
Wu, Tao		Univ. of Wisconsin-Madison
Shi, Leyuan		Univ. of Wisconsin-Madison
13:40-14:00		TuB4.3
<i>Multi-Period Capacity Planning for Maternity Facilities in a Perinatal Network: A Queuing and Optimization Approach</i> , pp. 137-142.		
Pehlivan, Canan		École Nationale Supérieure des Mines de Saint-Étienne
Augusto, Vincent		École Nationale Supérieure des Mines de Saint-Étienne
Xie, Xiaolan		Ec. des Mines de Saint Etienne
Crenn-Hebert, Catherine		Hôpital Louis Mourier
14:00-14:20		TuB4.4
<i>Promise Surgery Start Times and Implementation Strategies</i> , pp. 143-149.		
Zhang, Zheng		Shanghai Jiao Tong Univ.
Xie, Xiaolan		Ec. des Mines de Saint Etienne
Geng, Na		Shanghai Jiao Tong Univ.
14:20-14:40		TuB4.5
<i>Healthcare at Home Facility Location Allocation Problem</i> , pp. 150-155.		
Rodriguez-Verjan, Carlos Fernando		Ec. Nationale Superieure De Mines de Saint Etienne
Augusto, Vincent		École Nationale Supérieure des Mines de Saint-Étienne
Garaix, Thierry		Ec. Nationale Superieure de Mines de Saint Etienne
Xie, Xiaolan		Ec. des Mines de Saint Etienne
Buthion, Valerie		Univ. Lumiere Lyon 2
14:40-15:00		TuB4.6
<i>Human Motion Modelling and Recognition: A Computational Approach</i> , pp. 156-161.		
Bruno, Barbara		Univ. of Genova
Mastrogiovanni, Fulvio		Univ. of Genova, Italy
Sgorbissa, Antonio		Univ. of Genova
Vernazza, Tullio		Univ. of Genoa
Zaccaria, Renato		Univ. of Genova
TuB5		Namsan V
Industrial Control Systems (Regular Session)		
Chair: Han, JeongHeon		SAIT, Samsung Electronics
Co-Chair: Chung, Wan Kyun		POSTECH
13:00-13:20		TuB5.1
<i>Active Control of Turbine Tip Clearance by Fuzzy Parameter Self-Setting PID Algorithms (I)</i> , pp. 162-166.		
Jia, Binghui		Northwestern Pol. Univ.
Zhang, Xiaodong		Northwestern Pol. Univ.
Hou, Yujun		Northwestern Pol. Univ.

13:20-13:40	TuB5.2
<i>Mitigation of Chatter Instability in Milling Processes by Active Fourier Series Compensation</i> , pp. 167-171.	
Chen, Zhiyong	Univ. of Newcastle
Zhang, Hai-Tao	Huazhong (CentralChina) Univ. of Science and Technology
Ding, Han	Shanghai Jiao Tong Univ.
13:40-14:00	TuB5.3
<i>FPGA-Based Fuzzy Sliding Mode Control for Sensorless PMSM Drive</i> , pp. 172-177.	
Nguyen Khanh, Quang	Univ. of Tech. Sydney, Australia
Nguyen Dinh, That	Univ. of Tech. Sydney
Nguyen Hong, Quang	School of Electrical Engineering, Hanoi Univ. of Tech.
Ha, Q P	Univ. of Tech. Sydney
14:00-14:20	TuB5.4
<i>Study on Iterative Method of Electro-Hydraulic Actuator in Force Control</i> , pp. 178-183.	
Baek, Seung Guk	Sungkyunkwan Univ.
Kim, Hyoungkwon	KNR systems
Ahn, Kitak	KNR systems
Won, Ho Gyun	Sungkyunkwan Univ.
Koo, Ja Choon	Sungkyunkwan Univ.
TuC1	Grand Ballroom II
Petri Nets in Automation (Regular Session)	
Chair: Giua, Alessandro	Univ. of Cagliari
Co-Chair: Zhou, MengChu	New Jersey Inst. of Tech.
15:30-15:50	TuC1.1
<i>On Iterative Liveness-Enforcement for a Class of Generalized Petri Nets</i> , pp. 184-189.	
Hou, Yifan	Xidian Univ.
Liu, Ding	Xidian Univ.
Zhou, MengChu	New Jersey Inst. of Tech.
15:50-16:10	TuC1.2
<i>Petri Net Decomposition Approach to Deadlock-Free Scheduling for Dual-Armed Cluster Tools</i> , pp. 190-195.	
Matsumoto, Izuru	Osaka Univ.
Nishi, Tatsushi	Osaka Univ.
16:10-16:30	TuC1.3
<i>Scheduling of a Dual-Armed Cluster Tool with Two Independent Robot Arms</i> , pp. 196-201.	
Tonke, Daniel	KAIST, TU Munich
Lee, Tae-Eog	KAIST
16:30-16:50	TuC1.4
<i>Petri Net-Based Scheduling Analysis of Dual-Arm Cluster Tools with Wafer Revisiting (I)</i> , pp. 202-207.	
Qiao, Yan	Guangdong Univ. of Tech.
Wu, Naiqi	Guangdong Univ. of Tech.
Zhou, MengChu	New Jersey Inst. of Tech.
16:50-17:10	TuC1.5
<i>Scheduling of Petri Nets As a Multi-Objective Shortest Path Problem</i> , pp. 208-213.	
Wikborg, Uno	KAIST
Lee, Tae-Eog	KAIST
17:10-17:30	TuC1.6
<i>A Comparison among Tools for the Diagnosability of Discrete Event Systems</i> , pp. 214-219.	
Cabasino, Maria Paola	Univ. of Cagliari
Giua, Alessandro	Univ. of Cagliari, Italy
Marcias, Laura	Univ. of Cagliari, Italy
Seatzu, Carla	Univ. of Cagliari

TuC2	Namsan I
System Modeling and Simulation (Regular Session)	
Chair: Chen, Chun-Hung	George Mason Univ.
Co-Chair: Zhao, Qianchuan	Tsinghua Univ.
15:30-15:50	TuC2.1
<i>Modeling of Traffic Data Characteristics by Dirichlet Process Mixtures</i> , pp. 220-225.	
Ngan, Henry Y.T.	TheUniversity of Hong Kong
Yung, Nelson H.C.	Lab. for Intelligent Transportation System Res. Depa
Yeh, Anthony G.O.	Center of Urban Planning and Environmental Management, Departmenten
15:50-16:10	TuC2.2
<i>An Improved Simulation Budget Allocation Procedure to Efficiently Select the Optimal Subset of Many Alternatives</i> , pp. 226-232.	
Zhang, Si	National Univ. of Singapore
Lee, Loo Hay	National Univ. of Singapore
Chen, Chun-Hung	George Mason Univ.
Jen, Hen-Yi	Yuan Ze Univ.
16:10-16:30	TuC2.3
<i>Executable Simulation Lifecycle Management Framework Using Extensible and Interoperable Simulation Language</i> , pp. 233-238.	
Lee, Hyunsoo	Kumoh National Inst. of Tech.
Banerjee, Amarnath	Texas A&M Univ.
16:30-16:50	TuC2.4
<i>Control System Simulation for 360MN Extrusion Machine Based on Physical Model</i> , pp. 239-245.	
Li, Wei	Tsinghua Univ.
Li, Wan-Zhou	Tsinghua Univ.
Peng, Fei	Tsinghua Univ.
Zhao, Qianchuan	Tsinghua Univ.
16:50-17:10	TuC2.5
<i>Mathematical Modeling and Optimization of the Automated Wireless Charging Electric Transportation System</i> , pp. 246-251.	
Ko, Young Dae	Korea Advanced Inst. of Science and Tech.
Jang, Young Jae	Korea Advanced Inst. of Science and Tech.
Jeong, Seungmin	Korea Advanced Inst. of Science and Tech.
17:10-17:30	TuC2.6
<i>Modeling and Experimental Validation of Air-Fuel Ratio under Individual Cylinder Fuel Injection for Port-Injection Engines</i> , pp. 252-256.	
Liu, Yinhua	Sophia Univ.
Shen, Tielong	Sophia Univ.
TuC3	Namsan II
Biorobotics and Lab Automation (Regular Session)	
Chair: Gupta, Satyandra K.	Univ. of Maryland, Coll. Park
Co-Chair: Felekis, Dimitrios	ETHZ
15:30-15:50	TuC3.1
<i>Design of a Bending Mechanism for Automated Cystoscope</i> , pp. 257-262.	
Ye, Xianming	Qatar Univ.
Yoon, W. Jong	Qatar Univ.
15:50-16:10	TuC3.2
<i>Automated Indirect Transport of Biological Cells with Optical Tweezers Using Planar Gripper Formations</i> , pp. 263-268.	
Chowdhury, Sagar	Univ. of Maryland, Coll. Park
Thakur, Atul	Univ. of Maryland, Coll. Park
Wang, Chenlu	Univ. of Maryland, Coll. Park
Svec, Petr	Univ. of Maryland, Coll. Park
Losert, Wolfgang	Univ. of Maryland, Coll. Park
Gupta, Satyandra K.	Univ. of Maryland, Coll. Park

16:10-16:30		TuC3.3
<i>Magnetically Driven Micro-Robot with Suction Mechanism for On-Chip Automatic Cell Loading (I)</i> , pp. 269-274.		
Ichikawa, Akihiko		Nagoya Univ.
Arai, Fumihito		Nagoya Univ.
16:30-16:50		TuC3.4
<i>A Floyd-Dijkstra Hybrid Application for Mobile Robot Path Planning in Life Science Automation</i> , pp. 275-280.		
Liu, Hui		Univ. of Rostock
Stoll, Norbert		Univ. of Rostock
Junginger, Steffen		Univ. Rostock
Thurow, Kerstin		Univ. Rostock
16:50-17:10		TuC3.5
<i>Automated Stiffness Characterization of Living Tobacco BY2 Cells Using the Cellular Force Microscope (I)</i> , pp. 281-286.		
Felekis, Dimitrios		ETHZ
Weber, Alain		Univ. of Bern
Muntwyler, Simon		ETH Zurich
Routier-Kierzkowska, Anne-Lise		Bern Univ. Inst. of Plant Sciences
Beyeler, Felix		ETH Zurich
Smith, Richard S.		Univ. of Bern
Nelson, Bradley J.		ETH Zurich
17:10-17:30		TuC3.6
<i>Injection System for Cellular Assembly of 3D Bio-Tissue Engineered Constructs</i> , pp. 287-292.		
Lang, Michael		Univ. of Canterbury
Chen, XiaoQi		Univ. of Canterbury
Wang, Wenhui		Univ. of Canterbury
Woodfield, Timothy Bryan Francis		Univ. of Canterbury
TuC4		Namsan III
Healthcare System Management and Optimization (Special Session)		
Chair: Li, Jingshan		Univ. of Wisconsin - Madison
Co-Chair: Fanti, Maria Pia		Pol. di Bari
15:30-15:50		TuC4.1
<i>Early Warning System Modeling for Patient Bispectral Index Prognosis in Anesthesia and the Operating Room (I)</i> , pp. 293-298.		
Reese, Josh		Univ. of Illinois at Chicago
Wang, Yong		Univ. of Illinois at Chicago
Li, Lin		Univ. of Illinois at Chicago
Darabi, Houshang		Univ. of Illinois at Chicago
Ozcan, Mehmet		Univ. of Illinois at Chicago
Baughman, Verna		Univ. of Illinois at Chicago
Edelman, Guy		Univ. of Illinois at Chicago
Osland, Erik		Univ. of Illinois at Chicago
15:50-16:10		TuC4.2
<i>Improving Rapid Response Operations in Acute Care Delivery - Part I: System Modeling and Performance Evaluation (I)</i> , pp. 299-304.		
Xie, Xiaolei		Univ. of Wisconsin - Madison
Li, Jingshan		Univ. of Wisconsin - Madison
Swartz, Colleen		Univ. of Kentucky Chandler Medical Center
DePriest, Paul		Univ. of Kentucky Chandler Medical Center
16:10-16:30		TuC4.3
<i>Improving Rapid Response Operations in Acute Care Delivery - Part II: Continuous Improvement and Case Study (I)</i> , pp. 305-310.		
Xie, Xiaolei		Univ. of Wisconsin - Madison
Li, Jingshan		Univ. of Wisconsin - Madison
Swartz, Colleen		Univ. of Kentucky Chandler Medical Center
DePriest, Paul		Univ. of Kentucky Chandler Medical Center

16:30-16:50	TuC4.4
<i>Analysis of Hospital Rapid Response Protocols Using Simulation (I)</i> , pp. 311-318.	
Holloway, Lawrence	Univ. of Kentucky
Wang, Shuli	Univ. of Southern California
DePriest, Paul	Univ. of Kentucky Chandler Medical Center
Swartz, Colleen	Univ. of Kentucky Chandler Medical Center
16:50-17:10	TuC4.5
<i>A Three Level Strategy for the Design and Performance Evaluation of Hospital Departments: A Case Study (I)</i> , pp. 319-324.	
Fanti, Maria Pia	Pol. di Bari
Iacobellis, Giorgio	Pol. di Bari
Mangini, Agostino Marcello	Pol. di Bari
Ukovich, Walter	Univ. of Trieste
17:10-17:30	TuC4.6
<i>Operator Assignment and Routing Problems in Home Health Care Services (I)</i> , pp. 325-330.	
Yalcindag, Semih	Pol. di Milano and Ec. Centrale Paris
Matta, Andrea	Pol. di Milano
Sahin, Evren	Ec. Centrale Paris
TuC5	Namsan V
Sustainable Manufacturing System (Regular Session)	
Chair: Shen, Weiming	National Res. Council of Canada
Co-Chair: Lee, Sangwon	Sungkyunkwan Univ. School of Mechanical Engineering
15:30-15:50	TuC5.1
<i>Impact of Delivery Time on Optimal Production/Delivery/Maintenance Planning</i> , N/A	
Turki, Sadok	LGIPM
Hajej, Zied	Univ. de Metz
Rezg, Nidhal	Univ. of Metz
15:50-16:10	TuC5.2
<i>On the Assignment Problem of Arbitrary Processing Time Operations in Partially Overlapping Manufacturing Resources</i> , pp. 337-342.	
Ghonaim, Wafa	Western Univ.
Ghenniwa, Hamada	Electrical and Computer Engineering, Univ. of Western Ontar
Shen, Weiming	National Res. Council of Canada
16:10-16:30	TuC5.3
<i>Three Dimensional Adjustable Cavity for Flexible Singulation of Multiple Medications in an Automated Medication Dispenser</i> , pp. 343-348.	
Toh, Chen Koon	Inst. for Infocomm Res.
Ng, Suat Ling Jamie	Inst. for Infocomm Res.
Tan, Yiling Odelia	Inst. for Infocomm Res.
16:30-16:50	TuC5.4
<i>Real Time Electricity Demand Response for Sustainable Manufacturing Systems: Challenges and a Case Study</i> , pp. 349-353.	
Li, Lin	Univ. of Illinois at Chicago
Sun, Zeyi	Univ. of Illinois at Chicago
Tang, Zhijun	Eaton Corp.

Technical Program for Wednesday August 22, 2012

WeAS	Grand Ballroom II
Best Student Paper Award Competition (Regular Session)	
Chair: Lee, Tae-Eog	KAIST
Co-Chair: Kwon, SangJoo	Korea Aerospace Univ.
10:00-10:20	WeAS.1
<i>An Information-Theory and Virtual Metrology-Based Approach to Run-To-Run Semiconductor Manufacturing Control (I)</i> , pp. 354-359.	
Susto, Gian Antonio	Univ. of Padova
Schirru, Andrea	Univ. of Pavia, Italy
Pampuri, Simone	Univ. of Pavia, Italy
De Nicolao, Giuseppe	Univ. of Pavia, Italy
Beghi, Alessandro	Univ. di Padova
10:20-10:40	WeAS.2
<i>Abstractions for Nonblocking Supervisory Control of Extended Finite Automata</i> , pp. 360-366.	
Shoaei, Mohammad Reza	Chalmers Univ. of Tech.
Feng, Lei	KTH Royal Inst. of Tech.
Lennartson, Bengt	Chalmers Univ. of Tech.
10:40-11:00	WeAS.3
<i>Performance Bounds for Hybrid Flow Lines: Fundamental Behavior, Practical Features and Application to Linear Cluster Tools (I)</i> , pp. 367-372.	
Park, Kyungsu	KAIST
Morrison, James	KAIST
11:00-11:20	WeAS.4
<i>An Improved Rigidity Penalty for Deformable Registration of Head and Neck Images in Intensity-Modulated Radiation Therapy</i> , pp. 373-378.	
Kim, Jihun	Univ. of Michigan
Matuszak, Martha	Univ. of Michigan
Balter, James	Univ. of Michigan
Saitou, Kazuhiro	Univ. of Michigan
11:20-11:40	WeAS.5
<i>A Bilevel Decomposition Approach to Railway Crew Rostering Problems for Fair Labor Condition</i> , pp. 379-385.	
Sugiyama, Taichi	Osaka Univ.
Nishi, Tatsushi	Osaka Univ.
Inuiguchi, Masahiro	Osaka Univ.
Takahashi, Satoru	Mitsubishi Electric Corp.
Ueda, Kenji	Mitsubishi Electric Corp.
11:40-12:00	WeAS.6
<i>Ensemble Modeling and Control for Congestion Management in Automated Warehouses</i> , pp. 386-391.	
Mather, T, William	Drexel Univ.
Hsieh, M. Ani	Drexel Univ.

WeB1		Grand Ballroom II
Scheduling Methods for Semiconductor Manufacturing (Special Session)		
Chair: Moench, Lars		Univ. of Hagen
Co-Chair: Yugma, Claude		Ec. des Mines de Saint-Etienne
13:00-13:20		WeB1.1
<i>A Pull VPLs Based Release Policy and Dispatching Rule for Semiconductor Wafer Fabrication (I)</i> , pp. 392-396.		
Li, You		Shanghai Jiao Tong Univ.
Jiang, Zhibin		Shanghai Jiao Tong Univ.
Jia, Wenyou		Shanghai Jiao Tong Univ.
13:20-13:40		WeB1.2
<i>Scheduling on Parallel Machines with Time Constraints and Equipment Health Factor (I)</i> , pp. 397-402.		
Obeid, Ali		Ec. NATIONALE SUPERIEURE DES MINES DE SAINT ETIENNE CMP SGC
Dauzere-Peres, Stephane		France-Ec. des Mines de Saint-Etienne - Centre Microélectroniq
Yugma, Claude		Ec. des Mines de Saint-Etienne
13:40-14:00		WeB1.3
<i>Dispatching Rule Considering Time-Constraints on Processes for Semiconductor Wafer Fabrication Facility (I)</i> , pp. 403-408.		
L. Li		Tongji Univ.
Y. F. Li		Tongji Univ.
Z. J. Sun		Tongji Univ.
14:00-14:20		WeB1.4
<i>An Exploratory Study of a Decomposition Heuristic for Complex Shop Scheduling with Transportation (I)</i> , pp. 409-414.		
Driessel, Rene		Univ. of Hagen
Moench, Lars		Univ. of Hagen
14:20-14:40		WeB1.5
<i>Variable Neighborhood Search-Based Subproblem Solution Procedures for a Parallel Shifting Bottleneck Heuristic for Complex Job Shops (I)</i> , pp. 415-420.		
Bilyk, Andrew		Univ. of Hagen
Moench, Lars		Univ. of Hagen
14:40-15:00		WeB1.6
<i>Criteria Evaluation Considering the Current Time Used by a Genetic Scheduling Algorithm for Changeover and Tardiness Reduction (I)</i> , pp. 421-426.		
Dimitrov, Todor		Fraunhofer Inst. of Optronics, System Tech. andImage
Baumann, Michael		Fraunhofer Inst. of Optronics, System Tech. andImage
WeB2		Namsan I
Advanced Manipulation in Practical Services (Special Session)		
Chair: Wimboeck, Thomas		German Aerospace Center (DLR)
Co-Chair: Bae, Ji-Hun		Korea Inst. of Industrial Tech.
13:00-13:20		WeB2.1
<i>Development of an Anthropomorphic Robot Hand Aimed at Practical Use for Wide Service Robot Application (I)</i> , pp. 427-431.		
Park, Sung-Woo		KITECH
Bae, Ji-Hun		Korea Inst. of Industrial Tech.
Park, Jae-Han		Korea Inst. of Industrial Tech.
Baeg, Moon-Hong		Korea Inst. of Industrial Tech.
13:20-13:40		WeB2.2
<i>Contact Force Control of a Robotic Hand Using F/T Sensory Feedback with a Rigid Object (I)</i> , pp. 432-437.		
Jo, Joonhee		KIST
Kim, Sung-Kyun		Korea Inst. of Science and Tech.
Oh, Yonghwan		KIST
Oh, Sang-Rok		KIST

13:40-14:00		WeB2.3
<i>A Fabric Manipulation Utilizing Contacts with Environments (I)</i> , pp. 438-443.		
Shibata, Mizuho		Kinki Univ.
Hirai, Shinichi		Ritsumeikan Univ.
14:00-14:20		WeB2.4
<i>Property Identification of a Deformable Belt Object from Its Static Images Toward Its Manipulation (I)</i> , pp. 444-449.		
Wakamatsu, Hidefumi		Grad. School of Eng., Osaka Univ.
Aoki, Masayuki	Dept. of Materials & Mfg. Science, Graduate School of Eng., Osak	
Morinaga, Eiji		Osaka Univ.
Arai, Eiji		Graduate School of Eng., Osaka Univ.
Hirai, Shinichi		Ritsumeikan Univ.
14:20-14:40		WeB2.5
<i>Derivation and Verification of Synergy Coordinates for the DLR Hand Arm System (I)</i> , pp. 450-456.		
Wimboeck, Thomas		German Aerospace Center (DLR)
Reinecke, Jens		DLR
Chalon, Maxime		German Aerospace Center (DLR)
14:40-15:00		WeB2.6
<i>What Can Be Inferred from a Tactile Arrayed Sensor in Autonomous In-Hand Manipulation? (I)</i> , pp. 457-464.		
Ho, Van		Ritsumeikan Univ.
Hirai, Shinichi		Ritsumeikan Univ.
Noda, Akio		Mitsubishi Electric Corp.
Nagatani, Tatsuya		Mitsubishi Electric Corp.
WeB3		Namsan II
Monitoring and Fault Analysis (Special Session)		
Chair: Kamruzzaman, Joarder		Monash Univ.
Co-Chair: Park, Tae-Hyoung		Chungbuk National Univ.
13:00-13:20		WeB3.1
<i>Time-Delay Estimation of Ultrasonic Echoes Based on the Physical Model Matching (I)</i> , pp. 465-469.		
Yan, Xiaole		Xi'an Univ. of Architecture and Tech.
Gu, Lichen		Xi'an Univ. of Architecture and Tech.
13:20-13:40		WeB3.2
<i>Research on Fault Identification for Complex System Based on Generalized Linear Canonical Correlation Analysis (I)</i> , N/A		
Liu, Dan		School of Mechanical Engineering, Xi'an Jiaotong Univ.
Jiang, Duan		School of Mechanical Engineering, Xi'an Jiaotong Univ.
Chen, Xiaoguang		School of Mechanical Engineering, Xi'an Jiaotong Univ.
Luo, Ailing		School of Mechanical Engineering, Xi'an Jiaotong Univ.
Xu, Guanghua		School of Mechanical Engineering, Xi'an Jiaotong Univ.
13:40-14:00		WeB3.3
<i>Impact Characterization of Multiple-Points-Defect on Machine Fault Diagnosis</i> , pp. 475-480.		
Yaqub, Muhammad Farrukh		PhD Student, Monash Univ.
Gondal, Iqbal		Lecturer, Monash Univ.
Kamruzzaman, Joarder		Lecturer, Monash Univ.
14:00-14:20		WeB3.4
<i>Task-Oriented Synchronous Error Monitoring Framework in Robotic Manufacturing Process (I)</i> , pp. 481-486.		
Kim, Hyungsik		Korea Univ.
Cheong, Joono		Korea Univ.
Lee, Seung-Ik		etri
Kim, Joong-Bae		Electronics and Telecommunications Res. Inst.
14:20-14:40		WeB3.5
<i>Fault Detection for Plasma-Enhanced Chemical Vapor Deposition Process Using Feature Extraction</i> , pp. 487-492.		
Chang, Yaw-Jen		Chung Yuan Christian Univ.

14:40-15:00	WebB3.6
<i>A Dynamic Memory Model for Mechanical Fault Diagnosis Using One-Class Support Vector Machine (I)</i> , pp. 1-6	
Zhang, Qing	School of Mechanical Engineering, Xi'an Jiaotong Univ.
Xu, Guanghua	School of Mechanical Engineering, Xi'an Jiaotong Univ.
WeB4	Namsan III
Discrete Event Systems (1) (Regular Session)	
Chair: Lennartson, Bengt	Chalmers Univ. of Tech.
Co-Chair: Tazaki, Yuichi	Nagoya Univ.
13:00-13:20	WebB4.1
<i>A Symbolic Approach to Large-Scale Discrete Event Systems Modeled As Finite Automata with Variables</i> , pp. 498-503.	
Fei, Zhennan	Chalmers Univ. of Tech.
Miremadi, Sajed	Chalmers Univ. of Tech.
Akesson, Knut	Chalmers Univ. of Tech.
Lennartson, Bengt	Chalmers Univ. of Tech.
13:20-13:40	WebB4.2
<i>Data Based Construction of Bayesian Network for Fault Diagnosis of Event-Driven Systems</i> , pp. 504-510.	
Yamaguchi, Takuma	Nagoya Univ.
Inagaki, Shinkichi	Nagoya Univ.
Suzuki, Tatsuya	Nagoya Univ.
13:40-14:00	WebB4.3
<i>Deadlock Avoidance for Multi Product Manufacturing Systems Modeled As Sequences of Operations</i> , pp. 511-516.	
Bergagård, Patrik	Chalmers Univ. of Tech.
Fabian, Martin	Chalmers Univ. of Tech.
14:00-14:20	WebB4.4
<i>Polynomial Test for Stochastic Diagnosability of Discrete Event Systems</i> , pp. 517-522.	
Chen, Jun	Iowa State Univ.
Kumar, Ratnesh	Iowa State Univ.
14:20-14:40	WebB4.5
<i>State Estimation for Markovian Jump Linear System Using Quantized Measurements*</i> , pp. 523-527.	
Wu, Hao	Tsinghua Univ.
Ye, Hao	Tsinghua Univ.
14:40-15:00	WebB4.6
<i>Observation Policies for Patient and Resource Tracking in Outpatient Clinics (I)</i> , pp. 528-533.	
Darabi, Houshang	Univ. of Illinois at Chicago
Ashkan, Sharabiani	Univ. of Illinois at Chicago
WeB5	Namsan V
Industrial Robotics (1) (Regular Session)	
Chair: Choi, Sang	ABB, Inc
Co-Chair: Jung, Seul	Chung Nam National Univ.
13:00-13:20	WebB5.1
<i>Design and Control of a Multi Degree-Of-Freedom Hydraulic Manipulator in Steel Manufacturing</i> , pp. 534-539.	
Ho Yu	POSCO
Young Jin Park	POSTECH
Il Seop Choi	POSCO
Wan Kyun Chung	POSTECH
Kihwan Kim	POSCO
13:20-13:40	WebB5.2
<i>Numerical Evaluation of a New Robotic Manipulator Based on Inflatable Joints</i> , pp. 540-545.	
Voisembert, Sebastien	Commissariat a l'Energie Atomique
Riwan, Alain	CEA LIST
Mechbal, Nazih	Arts et Métiers Paritech, Paris

13:40-14:00	Web5.3
<i>Vibration Analysis in Robotic Ultrasonic Welding for Battery Assembly (I)</i> , pp. 546-550.	
Choi, Sang	ABB, Inc
Fuhlbrigge, Thomas	ABB Inc.
Nidamarthi, Srinivas	ABB Inc.
14:00-14:20	Web5.4
<i>A Simplified Time-Delayed Disturbance Observer for Position Control of Robot Manipulators</i> , pp. 551-556.	
Jung, Seul	Chung Nam National Univ.
Bae, Yeong Geol	Chungnam National Univ.
Tomizuka, Masayoshi	Univ. of California
14:20-14:40	Web5.5
<i>StrapMaster: A Robotic Band-Strapping System (I)</i> , pp. 557-559.	
Lee, Sang-Ho	ABB Inc.
Yoon, Dong-Hwan	Dain Systems
Choi, Sang	ABB, Inc
Newkirk, Jeremy	ABB Inc.
14:40-15:00	Web5.6
<i>A Parameter Estimation Method for the Bilateral Teleoperation Framework for an O2 Lance Manipulator (I)</i> , pp. 560-564.	
Kim, Hyoungkyun	POSTECH
Park, Byungjae	POSTECH
Lee, Jongwon	POSTECH
Park, Young Jin	POSTECH
Chung, Wan Kyun	POSTECH
WeC1	Grand Ballroom II
Production Planning and Scheduling (Regular Session)	
Chair: S G, Ponnambalam	Monash Univ.
Co-Chair: Luh, Peter	Univ. of Connecticut
15:30-15:50	WeC1.1
<i>A Hybrid Genetic Algorithm for Resource-Constrained Multi-Project Scheduling Problem with Resource Transfer Time</i> , pp. 565-570.	
Cai, ZhiCheng	Southeast Univ.
Li, Xiaoping	Southeast Univ.
15:50-16:10	WeC1.2
<i>Optimization-Based Litho Machine Scheduling with Load Balancing and Reticle Expiration</i> , pp. 571-576.	
Yan, Bing	Univ. of Connecticut
Chen, Hsin Yuan	Inotera Memories
Luh, Peter	Univ. of Connecticut
Wang, Simon	Inotera Memories
Chang, Joey	Inotera Memories
16:10-16:30	WeC1.3
<i>A Dual-Forecast Scheme for Production Output with Paired/Unpaired WIP Data</i> , pp. 577-582.	
Haw-Ching Yang	National Kaohsiung First University of Science and Tech.
Tsung-Han Tsai	National Cheng Kung Univ.
Chien-Yi Chao	National Cheng Kung Univ.
M.-H. Hung	Chinese Culture Univ.
Fan-Tien Cheng	National Cheng Kung Univ.
16:30-16:50	WeC1.4
<i>Scheduling Model for Systems with Complex Alternative Behaviour</i> , pp. 583-589.	
Wigström, Oskar	Chalmers Univ. of Tech.
Lennartson, Bengt	Chalmers Univ. of Tech.
16:50-17:10	WeC1.5
<i>Scheduling Flexible Assembly Lines Using Variants of Differential Evolution</i> , pp. 590-595.	
Lui, Vincent	Moansh Univ.
S G, Ponnambalam	Monash Univ.

17:10-17:30	WeC1.6
<i>An Efficient PSO for Type II Robotic Assembly Line Balancing Problem</i> , pp. 596-601.	
J, Mukund	Monash Univ.
S G, Ponnambalam	Monash Univ.
WeC2	Namsan I
Automation in Maintenance of Social Infrastructures (Special Session)	
Chair: Yi, Byung-Ju	Hanyang Univ.
Co-Chair: Roh, Se-gon	Samsung Electronics
15:30-15:50	WeC2.1
<i>Development of Cable Climbing Robot for Maintenance of Suspension Bridges (I)</i> , pp. 602-607.	
Kim, Ho Moon	SungKyunKwan Univ.
Cho, Kyeong Ho	SungKyunKwan Univ.
Jin, Young Hoon	SungKyunKwan Univ.
Liu, Fengyi	SungKyunKwan Univ.
Koo, Ja Choon	Sungkyunkwan Univ.
Choi, Hyouk Ryeol	Sungkyunkwan Univ.
15:50-16:10	WeC2.2
<i>Pathway Selection Mechanism of a Screw Drive In-Pipe Robot in T-Branches (I)</i> , pp. 608-613.	
Nishimura, Taiki	Ritsumeikan Univ.
Kakogawa, Atsushi	Ritsumeikan Univ.
Ma, Shugen	Ritsumeikan Univ.
16:10-16:30	WeC2.3
<i>A Linkage Type Mechanical Clutch Synthesis for Pipeline Inspection Robot (I)</i> , pp. 614-619.	
Kwon, Young-Sik	Hanyang Univ.
Seo, Jong Tae	Hanyang Univ.
Yi, Byung-Ju	Hanyang Univ.
16:30-16:50	WeC2.4
<i>A Study on the Measurement of Axial Cracks in the Magnetic Flux Leakage NDT System (I)</i> , pp. 620-625.	
Kim, Hui Min	Pusan National Univ.
Rho, Yong Woo	Korea Gas Corp. R&D Div.
Yoo, Hui Ryong	Korea Gas Corp. R&D Div.
Cho, Sung Ho	Korea Gas Corp. R&D Div.
Kim, Dong Kyu	Korea Gas Corp. R&D Div.
Koo, Sung Ja	Korea Gas Corp. R&D Div.
Park, Gwan Soo	Pusan National Univ.
16:50-17:10	WeC2.5
<i>In-Piping Actuator Capable of Free Movement in a Thin Complex Pipe (I)</i> , pp. 626-630.	
Hiroyuki Yaguchi, Hironao	Tohoku Gakuin Univ.
WeC3	Namsan II
Modeling, Analysis and Operation of High Technology Manufacturing (Special Session)	
Chair: Zhang, Liang	Univ. of Wisconsin-Milwaukee
Co-Chair: Kalir, Adar	Intel Corp.
15:30-15:50	WeC3.1
<i>A Workflow Management System for Cross-System Processes in Semiconductor Supply Chains (I)</i> , pp. 631-636.	
Russland, Tim Johannes	Infineon Tech. AG
Ehm, Hans	Infineon Tech. AG
Ponsignon, Thomas	Infineon Tech. AG

15:50-16:10		WeC3.2
<i>Future Research Directions for Mastering End-To-End Semiconductor Supply Chains (I)</i> , pp. 637-641.		
Ehm, Hans		Infineon Tech. AG
Ponsignon, Thomas		Infineon Tech. AG
16:10-16:30		WeC3.3
<i>Segregating Preventive Maintenance Work for Factory Performance Improvement (I)</i> , pp. 642-645.		
Kalir, Adar		Intel Corp.
16:30-16:50		WeC3.4
<i>On the Throughput of Deterministic Flow Lines with Random State Dependent Setups: Stochastic Models and Applications (I)</i> , pp. 646-651.		
Kim, Woosung		KAIST
Morrison, James		KAIST
16:50-17:10		WeC3.5
<i>Real-Time Performance Analysis of Production Lines: A System-Theoretic Approach (I)</i> , pp. 652-657.		
Chen, Guorong		Univ. of Wisconsin-Milwaukee
Zhang, Liang		Univ. of Wisconsin-Milwaukee
Arinez, Jorge		General Motors Res. & Development Center
Biller, Stephan		General Electric Corp.
WeC4		Namsan III
Discrete Event Systems (2) (Regular Session)		
Chair: Hiraishi, Kunihiko		Japan Advanced Inst. of Science and Tech.
Co-Chair: Dotoli, Mariagrazia		Pol. di Bari
15:30-15:50		WeC4.1
<i>On Opacity and Diagnosability in Discrete Event Systems Modeled by Pushdown Automata</i> , pp. 658-663.		
Kobayashi, Koichi		Japan Advanced Inst. of Science and Tech.
Hiraishi, Kunihiko		Japan Advanced Inst. of Science and Tech.
15:50-16:10		WeC4.2
<i>A Lean Manufacturing Strategy Using Value Stream Mapping, the Unified Modeling Language, and Discrete Event Simulation</i> , pp. 664-669.		
Dotoli, Mariagrazia		Pol. di Bari
Fanti, Maria Pia		Pol. di Bari
Iacobellis, Giorgio		Pol. di Bari
Rotunno, Giuliana		Pol. di Bari
16:10-16:30		WeC4.3
<i>Hierarchical Control of Discrete-Event Systems: A New Command and Control Design Based on Feasible System Decomposition</i> , pp. 670-675.		
Ngo, Quang Ha		Nanyang Tech. Univ.
Seow, Kiam Tian		Nanyang Tech. Univ.
16:30-16:50		WeC4.4
<i>A Process-Theoretic State-Based Framework for Live Supervision</i> , pp. 676-681.		
Markovski, Jasen		Eindhoven Univ. of Tech.
16:50-17:10		WeC4.5
<i>An Efficient Algorithm for the Enumeration of the Minimal Unsafe States in Complex Resource Allocation Systems</i> , pp. 682-689.		
Nazeem, Ahmed		Georgia Tech.
Reveliotis, Spiridon		Georgia Inst. of Tech.
17:10-17:30		WeC4.6
<i>Transition Removal for Compositional Supervisor Synthesis</i> , pp. 690-695.		
Mohajerani, Sahar		Chalmers Univ. of Tech.
Malik, Robi		Univ. of Waikato
Fabian, Martin		Chalmers Univ. of Tech.

WeC5		Namsan V
Industrial Robotics (2) (Regular Session)		
Chair: Roh, Kyungshik		Samsung Electronics
Co-Chair: Chang, Kyong-Sok		Simulation Lab. Co. Ltd. Korea
15:30-15:50		WeC5.1
<i>Increasing the Energy Efficiency of Multi-Robot Production Lines in the Automotive Industry</i> , pp. 696-701.		
Meike, Davis		Daimler AG
Pellicciari, Marcello		Univ. of Modena and Reggio Emilia
Berselli, Giovanni		Univ. di Bologna
Vergnano, Alberto		Univ. of Modena and Reggio Emilia
Ribickis, Leonids		Riga Tech. Univ.
15:50-16:10		WeC5.2
<i>3D Vision Based Object Pose Identification Systems for Automotive Sub-Assembly Automation</i> , pp. 702-709.		
Lee, Sukhan		Sungkyunkwan Univ.
Kim, Jaewoong		SungKyunKwan Univ.
Lee, Moonju		Sungkyunkwan Univ.
Yoo, KyeongDae		Sungkyunkwan Univ. Intelligent System reasearch Inst.
Barajas, Leandro		IEEE Huntsville Section
Menassa, Roland		General Motors
16:10-16:30		WeC5.3
<i>6DOF Pose Estimation Using 2D-3D Sensor Fusion (I)</i> , pp. 710-713.		
Shin, YongDeuk		KITECH
Park, Jae-Han		Korea Inst. of Industrial Tech.
Baeg, Moon-Hong		Korea Inst. of Industrial Tech.
16:30-16:50		WeC5.4
<i>Image and Sensor LOS-Based Automatic Horizontal Line Detection and Tracking for Infrared Search and Track</i> , pp. 714-719.		
Kim, Sungho		Yeungnam Univ.
Shim, Min-Sheob		Yeungnam Univ.
Choi, Byungjin		Samsung Thales Company
Kim, Jieun		Agency for Defense Development
Yang, Yukyung		Agency for Defense Development
16:50-17:10		WeC5.5
<i>Novel Sensors for Underground Robotics (I)</i> , pp. 720-724.		
Green, Jeremy		Center for Scientific and Industrial Res. (CSIR), South Afri
Coetzee, Shaun		Center for Scientific and Industrial Res. (CSIR), South Afri
17:10-17:30		WeC5.6
<i>Walking Pattern Generation Based on Energy Function and Inverse Pendulum Model for Biped Robot</i> , pp. 725-730.		
Luo, Ren		National Taiwan Univ.
Chang, Hong-Hao		Nation Taiwan Univ.
Chen, Chin-Cheng		National Taiwan Univ.
Huang, Kai-Chieh		National Taiwan Univ.

Technical Program for Thursday August 23, 2012

ThAS	Grand Ballroom I
Poster Session (Poster Session)	
Chair: Matsuhira, Nobuto	Shibaura Inst. of Tech.
Co-Chair: Kim, Jinhyun	Seoul National Univ. of Science and Tech.
10:00-12:00	ThAS.1
<i>Two-Stage Deadlock Prevention Policy Based on Resource-Transition Circuits, N/A</i>	
Han, Libin	Xi'an Jiaotong Univ.
Xing, Keyi	Xi'an Jiaotong Univ.
Zhou, MengChu	New Jersey Inst. of Tech.
Liu, Huixia	Xi'an Jiaotong Univ.
Wang, Feng	Xi'an Jiaotong Univ.
10:00-12:00	ThAS.2
<i>Development of Refractory Brick Construction Robot in Steel Works, N/A</i>	
Ryu, HwangRyol	Res. Inst. of Industrial Science Tech.
You, KiSung	Res. Inst. of industrial Science and Tech.
Jin, Maolin	RIST
Choi, Chintae	RIST
10:00-12:00	ThAS.3
<i>Automating Timed Specification Transparency for Human Designer Validation of Real-Time Discrete-Event Control Requirements, pp. 743-748.</i>	
Dhananjayan, Amrith	Nanyang Tech. Univ.
Seow, Kiam Tian	Nanyang Tech. Univ.
10:00-12:00	ThAS.4
<i>Functional Safety Aspects of Pattern Detection Algorithms, pp. 749-754.</i>	
Iden, Joachim	TUV Rheinland Japan, Ltd.
Penaloza, Christian Isaac	Osaka Univ.
10:00-12:00	ThAS.5
<i>Robust Stability Analysis of T-S Fuzzy Systems with Interval Time-Varying Delays Via a Relaxation Technique, N/A</i>	
Kim, Sung Hyun	UOU
10:00-12:00	ThAS.6
<i>A Novelty Degradation Assessment Method for Equipment Based on Multi-Kernel SVDD, pp. 759-762.</i>	
Zhu, Yongsheng	Xi'an Jiaotong Univ.
Song, Yinghua	Xi'an Jiaotong Univ.
Zhu, Xiaoran	Xi'an Jiaotong Univ.
Zhang, Youyun	Xi'an Jiaotong Univ.
10:00-12:00	ThAS.7
<i>Occupancy Pattern Based Intelligent Control for Improving Energy Efficiency in Buildings, pp. 763-768.</i>	
Wang, Zhu	Univ. of Toledo
Wang, Lingfeng	Univ. of Toledo
10:00-12:00	ThAS.8
<i>Weld Seam Detection Using Computer Vision for Robotic Arc Welding, pp. 769-774.</i>	
Dinham, Mitchell	Univ. of Western Sydney
Fang, Gu	Univ. of Western Sydney
10:00-12:00	ThAS.9
<i>An Expert Decision-Making Strategy Based on Collaborative Cloud System, N/A</i>	
Chiu-Chin Chen	National Chiao Tung Univ.
An-Pin Chen	National Chiao Tung Univ.

10:00-12:00	ThAS.10
<i>An Algorithm for On-Line Path Planning of Autonomous Mobile Overhead Traveling Crane Based on Obstacle Information</i> , pp. 780-785.	
Kaneshige, Akihiro	Toyota Coll. of Tech.
Nagai, Shunsuke	Toyota National Coll. of Tech.
Ueki, Satoshi	Toyota National Coll. of Tech.
Miyoshi, Takanori	Toyohashi Univ. of Tech.
Terashima, Kazuhiko	Toyohashi Univ. of Tech.
10:00-12:00	ThAS.11
<i>Design Automation of Valve Gate Locations and Open Timing for Injection Molding of an Automotive Instrument Panel</i> , pp. 786-788.	
Park, Chang-Hyun	PIDOTECH
Pyo, Byung-Gi	VMTech
Choi, Dong-Hoon	Hanyang Univ.
10:00-12:00	ThAS.12
<i>Dispatching of Lots to Dynamically Reduce the Wafer at Risk in Semiconductor Manufacturing</i> , pp. 789-792.	
Rodriguez-Verjan, Gloria Luz	ST Microelectronics and Ec. Nationale des Mines de SaintEtienne
Tartiere, Eric	STMicroelectronics
Pinaton, Jacques	STMicroelectronics
Dauzere-Peres, Stephane	France-Ec. des Mines de Saint-Etienne - Centre Microélectronique
Thieullen, Alexis	STMicroelectronics
10:00-12:00	ThAS.13
<i>Battery Energy Storage System Load Shifting Control Based on Real Time Load Forecast and Dynamic Programming</i> , pp. N/A	
Bao, Guannan	Tsinghua Univ.
Lu, Chao	Tsinghua Univ.
Yuan, Zhichang	Tsinghua Univ.
Lu, Zhigang	Electric Power Res. Inst. of China Southern Power Grid
10:00-12:00	ThAS.14
<i>Remote Control System of Home Electrical Appliances Using Speech Recognition</i> , pp. 799-802.	
Kawarazaki, Noriyuki	Kanagawa Inst. of Tech.
Yoshidome, Tadashi	Kanagawa Inst. of Tech.
10:00-12:00	ThAS.15
<i>2-DOF Torque Sensor for Precise Force Control of Robot Hand</i> , pp. 803-806.	
Kim, Tae-Keun	Korea Electronics Tech. Inst.
Kim, Bong-Seok	KOREA ELECTRONICS Tech. Inst.
Choi, Seung-yun	Korea Electronics Tech. Inst.
Kim, Daeho	Korea Electronics Tech. Inst.
Hwang, Jung-Hoon	Korea Eletronics Tech. Inst.
10:00-12:00	ThAS.16
<i>Implementation of Time Domain Passivity Approach on Rate-Mode Bilateral Teleoperation</i> , pp. 807-811.	
Ha Van Quang, Quang	BioRobotics Lab. School ofMechanicalEngineering,Korea Uni
Ryu, Jee-Hwan	Korea Univ. of Tech. and Education
10:00-12:00	ThAS.17
<i>Using Contact Points to Integrate Discipline Spanning Real-Time Requirements in Modeling Networked Automation Systems for Manufacturing Systems</i> , pp. 812-817.	
Frank, Timo	Tech. Univ. Munich
Hadlich, Thomas	OvGU Magdeburg
Eckert, Karin	Helmut-Schmidt-Univ. Hamburg
Diedrich, Christian	Otto-von-Guericke-Univ. Magdeburg
Fay, Alexander	Helmut-Schmidt-Univ. Hamburg
Vogel-Heuser, Birgit	Tech. Univ. Munich

10:00-12:00		ThAS.18
<i>Robot Interface Learning User-Defined Voice Instructions</i> , pp. 818-821.		
Yamamoto, Daisuke		TOSHIBA Co.
Doi, Miwako		TOSHIBA Corp.
10:00-12:00		ThAS.19
<i>Pressure-Drop Studies of Resistance Components for Integration into a SFM-Based Fluidic Circuit</i> , N/A		
Wu, Chun-Hui		National Taiwan Univ.
Hsieh, Yi-Fan		National Taiwan Univ. Taipei 106, Taiwan
Yang, An-Shik		National Taipei Univ. of Tech.
Chen, Ping-Hei		National Taiwan Univ.
10:00-12:00		ThAS.20
<i>Design, Fabrication, and Characterization of In-pipe Robot with Controllable Magnetic Force</i> , pp. 826-829.		
Yoon, Kyung-Hyun		Chungnam National Univ.
Park, Young-Woo		Chungnam National Univ.
10:00-12:00		ThAS.21
<i>Influence Limitation in Multi-Campaign Social Networks: A Shapley Value Based Approach</i> , pp. 830-835.		
Hemassunder, Prem Raj		Indian Inst. of Science
Yadati, Narahari		Indian Inst. of Science
10:00-12:00		ThAS.22
<i>Dynamic Redeployment of Control Software in Distributed Industrial Automation Systems During Runtime</i> , pp. 836-841.		
Merz, Martin		Tech. Univ. München
Vogel-Heuser, Birgit		Tech. Univ. Munich
Frank, Timo		Tech. Univ. Munich
10:00-12:00		ThAS.23
<i>A New Swappable Fluidic Module for Applications of Capillary Convective Polymerase Chain Reaction</i> , N/A		
Hsieh, Yi-Fan		National Taiwan Univ. Taipei 106, Taiwan
Yang, An-Shik		National Taipei Univ. of Tech.
Chen, Jia-Wei		Department of Mechanical Engineering, National Taiwan Univ.
Liao, Shao-Kai		Department of Energy and Refrigerating Air-Conditioning Engineer
Tseng, Li-Yu		Department of Energy and Refrigerating Air-Conditioning Engineer
Chen, Ping-Hei		National Taiwan Univ.
10:00-12:00		ThAS.24
<i>A New ELM Based on Interval-Value for Modeling in Industry Systems</i> , pp. 846-850.		
Dong, Mingyu		tsinghua Univ.
Ning, Kefeng		Tsinghua Univ.
Liu, Min		Tsinghua Univ.
10:00-12:00		ThAS.25
<i>Fitting a Functional Structural Plant Model Based on Global Sensitivity Analysis</i> , pp. 851-856.		
Lin, Yubin		Inst. of Automation, Chinese Acad. of Sciences
Kang, Mengzhen		Inst. of Automation, Chinese Acad. of Sciences
Hua, Jing		Inst. of Automation, Chinese Acad. of Science
10:00-12:00		ThAS.26
<i>A Point-Of-Care Test Equipment for Flexible Laboratory Automation</i> , pp. 857-858.		
Park, Jae Jun		KNR SYSTEMS Inc.
You, Won Suk		Sungkyunkwan
Jin, Sungmoon		Sungkyunkwan Univ.
Choi, Hyouk Ryeol		Sungkyunkwan Univ.
Ryew, Sung Moo		KnR Systems Inc.
Chung, Wan Kyun		POSTECH
Kim, Jinhyun		Seoul National Univ. of Science and Tech.

10:00-12:00	ThAS.27
<i>Mechanism Design for Green, Truthful Procurement Auctions</i> , pp. 859-864.	
Biswas, Shantanu	Infosys Tech. Ltd.
Bagchi, Deepak	Infosys
Yadati, Narahari	Indian Inst. of Science
Suresh, P	Infosys Tech. Ltd.
Subrahmanya, S V	Infosys Tech. Ltd.
Lavu, Udaya Lakshmi	IISc
Viswanadham, Nukala	Indian School of Business
10:00-12:00	ThAS.28
<i>A Robot Platform for Unmanned Weeding in a Paddy Field Using Sensor Fusion</i> , pp. 865-868.	
Kim, Gook-Hwan	Kyung Hee Univ.
Kim, Sang-Cheol	Rural Development Administration
Hong, Young-Ki	Rural Development Administration
Han, Kil-Su	Rural Development Administration
Lee, Soon-Geul	Kyung Hee Univ.
10:00-12:00	ThAS.29
<i>Multi-Robot Exploration with Communication Requirement to a Moving Base Station</i> , pp. 869-874.	
Pandey, Romit	International Inst. of Information Technology, Hyderabad.
Singh, Arun	International Inst. of Information Tech.
Krishna, Madhava	IIIT Hyderabad
10:00-12:00	ThAS.30
<i>Fast Randomized Planner for SLAM Automation</i> , pp. 875-880.	
Parulkar, Amey	International Inst. of Information Tech.
Shukla, Piyush	International Inst. of Information Tech. Hyderabad
Krishna, Madhava	IIIT Hyderabad
10:00-12:00	ThAS.31
<i>The Construction of a Full-Scale Wheel/rail Roller Rig in Korea</i> , pp. 881-882.	
Ahn, Kitak	KNR systems
Park, Jae Jun	KNR SYSTEMS Inc.
Ryew, Sung Moo	KnR Systems Inc.
10:00-12:00	ThAS.32
<i>Hydraulic Actuators in Application of Robot Manipulator</i> , pp. 883-884.	
Jang, Seongcheol	KNR systems
Lee, Gyoyoung	KNR systems
Kim, Hyoungkwon	KNR systems
Ahn, Kitak	KNR systems
Park, Jae Jun	KNR SYSTEMS Inc.
Ryew, Sung Moo	KnR Systems Inc.
10:00-12:00	ThAS.33
<i>Model-Based Automatic Test Generation for Simulink/Stateflow Using Extended Finite Automaton</i> , pp. 885-890.	
Li, Meng	Iowa State Univ.
Kumar, Ratnesh	Iowa State Univ.
10:00-12:00	ThAS.34
<i>Development of Semi-Automatic Painting System for Inner Hull Block Structures</i> , pp. 891-894.	
Lee, Dong Hoon	STX Offshore&Shipbuilding
Kim, Ho Kyeong	STX Offshore&Shipbuilding
10:00-12:00	ThAS.35
<i>Data Mining of Life Log for Developing a User Model-Based Service Application</i> , pp. 895-898.	
Ho, YiHsin	Tokyo Metropolitan Univ.
sato-Shimokawara, Eri	Tokyo Metropolitan Univ.
Yamaguchi, Toru	Tokyo Metropolitan Univ.

10:00-12:00	ThAS.36
<i>Dynamic Simulation of Radial Active Magnetic Bearing System for High Speed Rotor Using ADAMS and MATLAB Co-Simulation</i> , pp. 899-904.	
Ki-Chang Lee	Korea Electrotechnology Research Inst.
Do-Kwan Hong	Korea Electrotechnology Research Inst.
Yeon-Ho Jeong	Korea Electrotechnology Research Inst.
Chi-Yen Kim	Pusan National Univ.
Min-Cheol Lee	Pusan National Univ.
10:00-12:00	ThAS.37
<i>Structural Analysis of Built-In Sensor Frame in Jaws with Linear Type Gripper</i> , pp. 905-909.	
Shin, Dong-Hwan	DGIST(Daegu Gyeongbuk Inst. of Science & Tech.
Park, Tae Sang	DGIST
Kim, Yoon-Gu	DGIST(Daegu Gyeongbuk Inst. of Science & Tech.
An, Jinung	DGIST
10:00-12:00	ThAS.38
<i>Input Shaping Control for Suppression of Boom Vibrations</i> , pp. 910-913.	
Moon, Kee	San Diego State Univ.
10:00-12:00	ThAS.39
<i>Real-Time Path Planning for Low Altitude Flight Based on a* Algorithm and TF/TA Algorithm</i> , N/A	
Wang, He	Tsinghua Univ.
Li, Qing	Tsinghua Univ.
Cheng, Nong	Tsinghua Univ.
10:00-12:00	ThAS.40
<i>Treatment of Missing Values for Association Rule-Based Tool Commonality Analysis in Semiconductor Manufacturing</i> , pp. 920-925.	
Chen, Rong-Huei	National Taiwan Univ.
Fan, Chih-Min	Yuan Ze Univ.
ThB1	Grand Ballroom II
Non-Prehensile Manipulation on Smart Surface (Special Session)	
Chair: Moon, Hyungpil	Sungkyunkwan Univ.
Co-Chair: Laurent, Guillaume J.	FEMTO-ST Inst. - CNRS - ENSMM - Univ. deFranche-Comté
13:00-13:20	ThB1.1
<i>3-DOF Potential Air Flow Manipulation by Inverse Modeling Control (I)</i> , pp. 926-931.	
Delettre, Anne	FEMTO-ST Inst. - CNRS - ENSMM - Univ. de Franche-Comté
Laurent, Guillaume J.	FEMTO-ST Inst. - CNRS - ENSMM - Univ. de Franche-Comté
Le Fort-Piat, Nadine	FEMTO-ST
Varnier, Christophe	ENSMM-UFC-CNRS
13:20-13:40	ThB1.2
<i>Manipulating Objects with Gliders in Cellular Automata (I)</i> , pp. 932-937.	
Georgilas, Ioannis	Univ. of the West of England
Adamatzky, Andrew	Bristol Robotics Lab. Univ. of the West of England,
Melhuish, Chris	BRL
13:40-14:00	ThB1.3
<i>Manipulation with Vibratory Velocity Fields on a Tilted Plate (I)</i> , pp. 938-945.	
Vose, Thomas	Northwestern Univ.
Umbanhowar, Paul	Northwestern Univ.
Lynch, Kevin	Northwestern Univ.
14:00-14:20	ThB1.4
<i>2D Open-Loop Trajectory Control of a Micro-Object in a Dielectrophoresis-Based Device (I)</i> , pp. 946-951.	
Kharboutly, Mohamed	FEMTO-ST Inst. CNRS UFC/ENSMM/UTBM
Melis, Amexandre	Univ. of Franche-Compte FEMTO-ST Inst.
Gauthier, Michael	FEMTO-ST Inst.
Chaillet, Nicolas	Univ. of Franche-Comté

14:20-14:40	ThB1.5
<i>Estimation of a Thin Flexible Object with Bipedal Gaits (I)</i> , pp. 952-957.	
Ramirez-Alpizar, Ixchel Georgina	Osaka Univ.
Higashimori, Mitsuru	Osaka Univ.
Kaneko, Makoto	Osaka Univ.
ThB2	Namsan I
IT-Enabled Planning, Coordination and Scheduling (Regular Session)	
Chair: Ma, Yongsheng	Univ. of Alberta
Co-Chair: Hung, Min-Hsiung	Chinese Culture Univ.
13:00-13:20	ThB2.1
<i>Development of a Cloud-Computing-Based Equipment Monitoring System for Machine Tool Industry</i> , pp. 958-963.	
Hung, Min-Hsiung	Chinese Culture Univ.
Lin, Yu-Chuan	National Cheng Kung Univ.
Tran, Huy Q.	Inst. of Manufacturing Information and Systems, National Chen
Yang, Haw-Ching	National Kaohsiung First Univ. of Sci. and Tech.
Cheng, Fan-Tien	National Cheng Kung Univ.
13:20-13:40	ThB2.2
<i>Design of an Order Acceptance and Scheduling Module in a Unified Framework with Product and Process Features (I)</i> , pp. 964-969.	
Wei, Jingxing	Univ. of Alberta
Ma, Yongsheng	Univ. of Alberta
13:40-14:00	ThB2.3
<i>A Novel Fuzzy Data Envelopment Analysis Methodology for Performance Evaluation in a Two-Stage Supply Chain</i> , pp. 970-975.	
Costantino, Nicola	Pol. di Bari
Dotoli, Mariagrazia	Pol. di Bari
Epicoco, Nicola	DEE-Pol. di Bari
Falagario, Marco	Pol. di Bari
Sciancalepore, Fabio	Pol. di Bari
14:00-14:20	ThB2.4
<i>Control of Pneumatic Artificial Muscles with the Just-In-Time Method Based on a Client-Server Architecture Via the Internet</i> , pp. 976-981.	
Kosaki, Takahiro	Hiroshima City Univ.
Sano, Manabu	Hiroshima City Univ.
14:20-14:40	ThB2.5
<i>Discovery of Behavior in Industrial Plants: A KDD Based Proposal</i> , N/A	
Cunha, Marcio Jose	Federal Univ. of Uberlândia
Belini, Valdinei	USP
Caurin, Glauco Augusto de Paula	EESC - USP
14:40-15:00	ThB2.6
<i>Mandi Electronic Exchange: Orchestrating Indian Agricultural Markets for Maximizing Social Welfare</i> , pp. 988-993.	
Nukala, Viswanadham	IISc
Sridhar, Chidananda	Indian Inst. of Science, Bangalore
Yadati, Narahari	Indian Inst. of Science
Dayama, Pankaj	General Motors R & D

ThB3	Namsan II
Automation in Building Maintenance/ Management (Special Session)	
Chair: Han, Chang-Soo	Hanyang Univ.
Co-Chair: Lee, Dongjun	Seoul National Univ.
13:00-13:20	ThB3.1
<i>Window Detection for Gondola Robot Using a Visual Camera (I)</i> , pp. 994-999.	
Kim, Dong Yeop	KETI (Korea Electronics Tech. Inst.)
Yoon, Jongsu	KETI (Korea Electronics Tech. Inst.)
Sun, Hwadong	KETI (Korea Electronics Tech. Inst.)
Park, Chang-Woo	KETI (Korea Electronics Tech. Inst.)
13:20-13:40	ThB3.2
<i>Proposal of Built-In-Guide-Rail Type Building Façade Cleaning Robot and Its Motion Planning Algorithm (I)</i> , pp. 1000-1005.	
Kim, Donghyung	Hanyang Univ.
Lee, Seunghoon	Hanyang Univ.
Kang, Min-Sung	Hanyang Univ.
Chun, Bo-Il	Hanyang Univ.
Han, Chang-Soo	Hanyang Univ.
13:40-14:00	ThB3.3
<i>Experiment for Attaching Performance of a Suction Fan and Vacuum Pad on Grooved Vertical Concrete Walls (I)</i> , pp. 1006-1011.	
Ham, Young-Bog	Korea Inst. of Machinery & Materials
Lim, Byung-ju	Korea Inst. of Machinery and Materials
Park, Chang-Dae	Korea Inst. of Machinery and Materials
14:00-14:20	ThB3.4
<i>Development of a Seismic-Wind Load Effect Experiment System for Built-In Guide Rail Building Maintenance Robot (I)</i> , pp. 1012-1017.	
Kim, Sung-Won	Korea Univ.
Hong, Daihie	Korea Univ.
Moon, Sung-Min	Korea Univ.
Huh, JaeMyung	Korea Univ.
14:20-14:40	ThB3.5
<i>An Experimental Study on Fastener Anchor System Supporting Curtain Wall and Cleaning Robot (I)</i> , pp. 1018-1023.	
Kyu Won Yeun	Institute of Construction Technology Research Engineer
Yu Gil Han	Institute of Construction Technology Research Engineer
Yong Won Lee	Institute of Construction Technology Research Engineer
Jong Kim	Institute of Construction Technology Research Engineer
14:40-15:00	ThB3.6
<i>Distance Measurement for Tower Crane Obstacle Based on Multi-Ultrasonic Sensors (I)</i> , pp. 1024-1028.	
Gu, Lichen	Xi'an Univ. of Architecture and Tech.
Kou, Xueqin	Xi'an Univ. of Architecture and Tech.
Jia, Jia	Xi'an Univ. of Architecture and Tech.
ThB4	Namsan III
Medical Robotics and Automated Diagnosis (Regular Session)	
Chair: Kwon, Youngdo	Samsung Electronics
Co-Chair: Nilsson, Klas	Lund Univ.
13:00-13:20	ThB4.1
<i>High Accuracy Patient Positioning System: Geometric and Elastic Error Calibration of a Flexible Model</i> , pp. 1029-1035.	
Kammerer, Nolwenn	CEA-LIST
Perrot, Yann	CEA LIST

13:20-13:40	ThB4.2
<i>Research on a Detection and Recognition Method of Tactile-Slip Sensation Used to Control the Elderly-Assistant & Walking-Assistant Robot (I)</i> , pp. 1036-1041.	
Wei, Xiaojuan	Xi'an Jiaotong Univ.
Zhang, Xiao-Dong	Xi'an Jiaotong Univ.
Wang, Yunxia	Xi'an Jiaotong Univ.
13:40-14:00	ThB4.3
<i>Dynamic Spatiotemporal Warping for the Detection and Location of Myocardial Infarctions (I)</i> , pp. 1042-1047.	
Kan, Chen	Univ. of South Florida
Yang, Hui	Univ. of South Florida
14:00-14:20	ThB4.4
<i>A Practical Method for Motor Imagery Based Real-Time Prosthesis Control (I)</i> , pp. 1048-1052.	
Li, Yao-Nan	Xi'an Jiaotong Univ.
Zhang, Xiao-Dong	Xi'an Jiaotong Univ.
Zhao-Xiang, Huang	School of Mechanical Engineering, Xi'an Jiaotong Univ.
14:20-14:40	ThB4.5
<i>Identification of Dynamic Posture in Lower Extremity Using Optical Fiber Sensor (I)</i> , pp. 1053-1056.	
Chen He, Xiaodong Zhang*, Yang Wang, Zhenhai Zhang	Northwestern Polytechnical University
ThB5	Namsan V
Dual-Arm System in Manufacturing (Special Session)	
Chair: Shim, Youngbo	Samsung Electronics
Co-Chair: Kyung, Jinho	Korea Inst. of Machinery & Materials (KIMM)
13:00-13:20	ThB5.1
<i>Development of Manipulation Planning Algorithm for a Dual-Arm Robot Assembly Task (I)</i> , pp. 1057-1062.	
You, Jae-Sang	Hanyang Univ.
Kim, Donghyung	Hanyang Univ.
Lim, Sung-Jin	Hanyang Univ.
Kang, Sung-Pil	Hanyang Univ.
Lee, Ji-Yeong	Hanyang Univ.
Han, Chang-Soo	Hanyang Univ.
13:20-13:40	ThB5.2
<i>Dual Arm Robot for Packaging and Assembling of IT Products (I)</i> , pp. 1063-1066.	
Do, Hyun Min	Korea Inst. of Machinery and Materials
Park, Chanhun	KIMM
Kyung, Jinho	Korea Inst. of Machinery & Materials (KIMM)
13:40-14:00	ThB5.3
<i>COM Control of Dual Arm Robot Using COM Jacobian (I)</i> , pp. 1067-1069.	
Ryu, Kwanghyun	Korea Inst. of Science and Tech.
Oh, Yonghwan	KIST
Choi, Minjoon	U3 Robotics
14:00-14:20	ThB5.4
<i>Hole Detection Algorithm for Square Peg-In-Hole Using Force-Based Shape Recognition (I)</i> , pp. 1070-1075.	
Kim, Young-Loul	Korea Univ.
Kim, Byeong-Sang	Korea Univ.
Song, Jae-Bok	Korea Univ.
14:20-14:40	ThB5.5
<i>Collision Detection Using Band Designed Disturbance Observer (I)</i> , pp. 1076-1081.	
Jung, Byung-jin	SungKyunKwan Univ.
Choi, Hyouk Ryeol	Sungkyunkwan Univ.
Koo, Ja Choon	Sungkyunkwan Univ.
Moon, Hyungpil	Sungkyunkwan Univ.

14:40-15:00	ThB5.6
<i>Development of Joint Torque Sensor Applied to Compensate Crosstalk Error (I)</i> , pp. 1082-1084.	
Choi, Seung-yun	Korea Electronics Tech. Inst.
Kim, Tae-Keun	Korea Electronics Tech. Inst.
Kim, Dong Yeop	KETI (Korea Electronics Tech. Inst.
Kim, Bong-Seok	KOREA ELECTRONICS Tech. Inst.
Hwang, Jung-Hoon	Korea Eletronics Tech. Inst.
Park, Chang-Woo	KETI (Korea Electronics Tech. Inst.
ThC1	Grand Ballroom II
Grasp Planning (Regular Session)	
Chair: Cheong, Joono	Korea Univ.
Co-Chair: Shapiro, Amir	Ben Gurion Univ. of the Negev
15:30-15:50	ThC1.1
<i>Independent Contact Region (ICR) Based In-Hand Motion Planning Algorithm with Guaranteed Grasp Quality Margin (I)</i> , pp. 1085-1090.	
Jeong, Hyunhwan	Korea Univ.
Cheong, Joono	Korea Univ.
15:50-16:10	ThC1.2
<i>A Common 3-Finger Grasp Search Algorithm for a Set of Planar Objects</i> , pp. 1091-1096.	
Sintov, Avishai	Ben Gurion Univ. of the Negev
Raghothama, Srinivas	Global General Motors R & D
Menassa, Roland	General Motors
Shapiro, Amir	Ben Gurion Univ. of the Negev
16:10-16:30	ThC1.3
<i>Design of a Grasp Force Adaptive Control System with Tactile and Slip Perception (I)</i> , pp. 1097-1101.	
Huang, Zhaoxiang	Xi'an Jiaotong Univ.
Zhang, Xiao-Dong	Xi'an Jiaotong Univ.
Li, Yao-Nan	Xi'an Jiaotong Univ.
16:30-16:50	ThC1.4
<i>Estimating Part Tolerance Bounds Based on Adaptive Cloud-Based Grasp Planning with Slip</i> , pp. 1102-1109.	
Kehoe, Ben	Univ. of California, Berkeley
Berenson, Dmitry	Univ. of California, Berkeley
Goldberg, Ken	UC Berkeley
16:50-17:10	ThC1.5
<i>Grasp Motion Learning with Gaussian Process Dynamic Models</i> , pp. 1110-1115.	
An, Byungchul	Seoul National Univ.
Kang, Hyuk	Seoul Nat'l Univ.
Park, Frank	Seoul National Univ.
17:10-17:30	ThC1.6
<i>Kinematics of the Robomec Robot Hand with Planar and Spherical Four Bar Linkages for Power Grasping</i> , N/A	
Lee, Sang Mun	IAE
Lee, Kyoung Don	IAE
Min, Heung Ki	IAE
Noh, Tae Sung	Robomec
Lee, Jeong Woo	Kangwon national Univ.

ThC2		Namsan I
Multiagent Planning and Control (Regular Session)		
Chair: Lee, Geunho	Japan Advanced Inst. of Sci. & Tech.	
Co-Chair: Möller, Christopher	Hamburg Univ. of Tech.	
15:30-15:50		ThC2.1
<i>A Cooperative Localization Algorithm for Mobile Sensor Networks</i> , pp. 1122-1127.		
Suh, Junghun	Seoul National Univ.	
You, Seungil	California Inst. of Tech.	
Oh, Songhwai	Seoul National Univ.	
15:50-16:10		ThC2.2
<i>Local vs. Global Coordination Control Schemes</i> , pp. 1128-1133.		
Möller, Christopher	Hamburg Univ. of Tech.	
16:10-16:30		ThC2.3
<i>Locally Communicative Interaction Framework for Adaptively Self-Organizing Mobile Sensor Networks</i> , pp. 1134-1139.		
Tatara, Kazutaka	Japan Advanced Inst. of Science and Tech.	
Lee, Geunho	Japan Advanced Inst. of Sci. & Tech.	
Ono, Hiroaki	Japan Advanced Inst. of Science and Tech.	
Chong, Nak Young	Japan Advanced Inst. of Sci. and Tech.	
16:30-16:50		ThC2.4
<i>On Numerical Optimization Design of Continuous-Time Feedback Type Quantizer for Networked Control Systems</i> , pp. 1140-1145.		
Sawada, Kenji	The Univ. of Electro-Communications	
Shin, Seiichi	Univ. of Electro-Communications	
ThC3		Namsan II
Path Planning and Navigation (Regular Session)		
Chair: Yu, Wonpil		ETRI
Co-Chair: Do, Hyun Min	Korea Inst. of Machinery and Materials	
15:30-15:50		ThC3.1
<i>Point Stabilization of Mobile Robots by Genetic Sliding Mode Approach with Neural Dynamics Model on Uneven Surface</i> , N/A		
Cao, Zhengcai	Beijing Univ. of Chemical Tech.	
Zhao, Yingtao	Beijing Univ. of Chemical Tech.	
Fu, Yili	the State Key Lab. of Robotics and Systems	
15:50-16:10		ThC3.2
<i>Automated Robotic Service in Large-Scale Exhibition Environments</i> , pp. 1152-1157.		
Wonpil Yu		ETRI
Yu-Cheol Lee		ETRI
Sunglok Choi		ETRI
Heesung Chae		ETRI
Jihoon Jung	Hyundai Heavy Industries Co., Ltd.	
16:10-16:30		ThC3.3
<i>Actionable Topological Mapping for Navigation Using Nearby Objects</i> , pp. 1158-1163.		
Kim, Junyoung	Seoul National Univ.	
Kim, Juyong	Seoul National Univ.	
You, Seungil	California Inst. of Tech.	
Oh, Yoonseon	Seoul National Univ.	
Oh, Songhwai	Seoul National Univ.	

16:30-16:50	ThC3.4
<i>An Underwater Cleaning Robot for Industrial Reservoirs</i> , pp. 1164-1168.	
Lee, Munjik	Pohang Inst. of Intelligent Robotics
Park, Jeong Woo	Pohang Inst. of Intelligent Robotics
Park, Sang-Heon	Pohang Inst. of Intelligent Robotics
Lee, Jungwoo	Pohang Inst. of Intelligent Robotics
Park, Sungkook	Pohang Inst. of Intelligent Robotics
Kim, Jong-Geol	Pohang Inst. of Intelligent Robotics
Hong, Youngjin	Pohang Inst. of Intelligent Robotics
Suh, Jinho	Pohang Inst. of Intelligent Robotics
Lee, Yun-Jung	Kyungpook National Univ.
16:50-17:10	ThC3.5
<i>Extended RRT-Based Path Planning for Flying Robots in Complex 3D Environments with Narrow Passages</i> , pp. 1169-1174.	
Li, Dachuan	Tsinghua Univ.
Li, Qing	Tsinghua Univ.
Cheng, Nong	Tsinghua Univ.
Song, Jingyan	Tsinghua Univ.
17:10-17:30	ThC3.6
<i>High Accuracy Inertial Navigation for Underground Mining Machinery (I)</i> , pp. 1175-1179.	
Dunn, Mark	CSIRO
Thompson, Jeremy	CSIRO
Reid, Peter	CSIRO
Reid, David	CSIRO
ThC4	Namsan III
Material Handling and Assembly (Regular Session)	
Chair: Raja Ismail, Raja Mohd Taufika	Univ. Malaysia Pahang
Co-Chair: Lu, Tien-Fu	Univ. of Adelaide
15:30-15:50	ThC4.1
<i>Sustainable and Robust Control of Cyclic Pallet Systems</i> , pp. 1180-1187.	
Mashaei, Maziar	Chalmers Univ. of Tech.
Lennartson, Bengt	Chalmers Univ. of Tech.
15:50-16:10	ThC4.2
<i>A Simulation Study of Sensor Data Fusion Using UKF for Bucket Wheel Reclaimer Localization</i> , pp. 1188-1193.	
Shi Zhao	University of Adelaide
Tien-Fu Lu	University of Adelaide
Ben Koch	MatrixGroup
Alan Hurdsman	MatrixGroup
16:10-16:30	ThC4.3
<i>Partial Feedback Linearization Control of the Three Dimensional Overhead Crane</i> , pp. 1194-1199.	
Le, Anh Tuan	Kyung Hee Univ.
Kim, Gook-Hwan	Kyung Hee Univ.
Lee, Soon-Geul	Kyung Hee Univ.
16:30-16:50	ThC4.4
<i>Observer-Based Trajectory Tracking for a Class of Underactuated Lagrangian Systems Using Higher-Order Sliding Modes</i> , pp. 1200-1205.	
Raja Ismail, Raja Mohd Taufika	Univ. Malaysia Pahang
Nguyen Dinh, That	Univ. of Tech. Sydney
Ha, Q P	Univ. of Tech. Sydney