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Kragic, Danica	KTH
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Co-Chair: Xie, Xiaolei	Tsinghua Univ
Organizer: Song, Jie	Peking Univ
Organizer: Jia, Qing-Shan	Tsinghua Univ
Organizer: Chen, Chun-Hung	
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Mishra, Sandipan	RPI
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Castiglia, Timothy	Rensselaer Pol. Inst
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Wang, Fulin	Tsinghua Univ
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Dotoli, Mariagrazia	Pol. Di Bari
Pellegrino, Roberta	Pol. Di Bari
Ranieri, Luigi	Univ. of Salento

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Co-Chair: Matta, Andrea	Shanghai Jiao Tong Univ
Organizer: Matta, Andrea	Shanghai Jiao Tong Univ
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Organizer: Li, Congbo	Chongqing Univ
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Shanthikumar, George	Purdue Univ
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Co-Chair: Lau, Hoong Chuin	Singapore Management Univ
Organizer: Fanti, Maria Pia	Pol. Di Bari
Organizer: Hu, Hesuan	Xidian Univ
Organizer: Ukovich, Walter	Univ. of Trieste
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Zhou, MengChu	New Jersey Inst. of Tech

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Kumar, Akshat	Singapore Management Univ

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Masopust, Tomas	TU Dresden
Van Schuppen, Jan H.	Van Schuppen Control Res

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Sadok Rezig, Sadok	LGIPM
Achour Zied, Zied	LGIPM
Rezg Nidhal, Nidhal	LGIPM

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Luo, JiLiang	Huaqiao Univ
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Bouzlikhane, Salim	International Univ. of Agadir, Univ

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Chair: Neubert, Jeremiah	Univ. of North Dakota
Co-Chair: Lin, Ming-Tsung	National Formosa Univ

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Caro, Stéphane	CNRS/IRCCyN
Gouttefarde, Marc	CNRS

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Tsal, Meng-Shiun	National Chung-Cheng Univ
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Neubert, Jeremiah	Univ. of North Dakota

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Chair: Gidlund, Mikael	Mid Sweden Univ
Co-Chair: Åkerberg, Johan	ABB Corp. Res. Sweden
Organizer: Gidlund, Mikael	Mid Sweden Univ
Organizer: Åkerberg, Johan	ABB Corp. Res. Sweden

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Lavarini, Mirko	Univ. of Brescia

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Zhang, Tingting Mid Sweden Univ

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Adjih, Cedric Inria  
Vilajosana, Xavier Univ. Oberta De Catalunya

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Chair: Andersen, Rasmus Danish Tech. Inst Hasle  
Co-Chair: Feldmann, Stefan Tech. Univ. München

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Beck, Anders Billesø Tech. Univ. of Denmark, Danish Tech. Inst  
Hallam, John Univ. of Southern Denmark

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Kernschmidt, Konstantin Tech. Univ. Munich  
Wolfenstetter, Thomas Tech. Univ. München  
Kammerl, Daniel Tech. Univ. München  
Qamar, Ahsan Georgia Inst. of Tech  
Lindemann, Udo Tech. Univ. München  
Krcmar, Helmut Tech. Univ. München  
Paredis, Chris Georgia Inst. of Tech  
Vogel-Heuser, Birgit Tech. Univ. Munich

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Fabian, Martin Chalmers Univ. of Tech

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Tacconi, Lorenzo Tetra Pak Packaging Solution SpA  
Fantuzzi, Cesare Univ. Di Modena E Reggio Emilia

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Chair: Ramdani, Nacim Univ. Orléans  
Co-Chair: Jia, Qing-Shan Tsinghua Univ  
Organizer: Song, Jie Peking Univ  
Organizer: Jia, Qing-Shan Tsinghua Univ  
Organizer: Chen, Chun-Hung

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Soh, Yeng Chai Nanyang Tech. Univ

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Luo, Yiwen Nanyang Tech. Univ  
Lu, Xiaoxuan Nanyang Tech. Univ  
Jiang, Hao Nanyang Tech. Univ  
Xie, Lihua School of Electrical and Electronic Engineering Nanyang Tech

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Spanos, Costas Univ. of California, Berkeley

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Becis, Yasmina Univ. D&apos;orléans  
Aubry, Didier Univ. of Orléans  
Ramdani, Nacim Univ. Orléans  
Fränzle, Martin Carl Von Ossietzky Univ. Oldenburg

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Zhang, Fangyi The Hong Kong Univ. of Science and Tech  
Liu, Ming Hong Kong Univ. of Science and Tech

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Ji, Yonghoon The Univ. of Tokyo  
Yamashita, Atsushi The Univ. of Tokyo  
Asama, Hajime The Univ. of Tokyo



Tu_2-T2	Sandberg 1
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Chair: Chang, Qing	Stony Brook Univ
Co-Chair: Lei, Yong	Zhejiang Univ
Organizer: Chang, Qing	Stony Brook Univ
Organizer: Lei, Yong	Zhejiang Univ
Organizer: Jin, Xiaoning	Univ. of Michigan
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Brundage, Michael	Stony Brook Univ
Chang, Qing	Stony Brook Univ
Arinez, Jorge	General Motors Res. & Development Center
Longtin, Jon	Stony Brook Univ
He, Tao	Stony Brook Univ
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Chen, Shikui	State Univ. of New York at Stony Brook
Chang, Qing	Stony Brook Univ
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Jin, Chao	Univ. of Cincinnati
Djurdjanovic, Dragan	Univ. of Texas -Austin
Davari Ardakani, Hossein	Univ. of Cincinnati
Wang, Keren	Univ. of Texas, Austin
Buzza, Matthew	Univ. of Cincinnati
Begheri, Behrad	Univ. of Cincinnati
Brown, Patrick	Univ. of Cincinnati
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Tang, Longhao	ZHEJIANG Univ
Yang, Fan	ZHEJIANG Univ
Lei, Yong	Zhejiang Univ
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Shan, Siqing	Beihang Univ
Qiao, Lihong	Beihang Univ
Lei, Yong	Zhejiang Univ
Yang, Guangxun	Beihang Univ

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Wei, Dong	Siemens Corp. Corp. Tech
Wang, Lingyun	Siemens
Li, Lin	Univ. of Illinois at Chicago

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Co-Chair: Hong, I-Hsuan	National Taiwan Univ

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Zelewski, Stephan	Univ. of Duisburg-Essen

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Viswanadham, Nukala	Indian Inst. of Science

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Liu, Yunhui	Chinese Univ. of Hong Kong
Fang, Mu	The Chinese Univ. of Hong Kong
Zheng, Zhizeng	The Chinese Univ. of Hong Kong
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Shen, Weiming	National Res. Council of Canada

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Co-Chair: Mahulea, Cristian	Univ. De Zaragoza
Organizer: Basile, Francesco	Univ. Di Salerno
Organizer: Mahulea, Cristian	Univ. De Zaragoza
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Li, Zhiwu	Xidian Univ
Giua, Alessandro	Univ. of Cagliari, Italy
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Chiacchio, Pasquale	Univ. Di Salerno
Coppola, Jolanda	DIEII Univ. Di Salerno
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Seatzu, Carla	Univ. of Cagliari
Wang, Shouguang	Zhejiang Gongshang Univ
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Qiao, Yan	Guangdong Univ. of Tech
Zhou, MengChu	New Jersey Inst. of Tech
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Uehara, Kenji	Japan Advanced Inst. of Science and Tech
Hiraishi, Kunihiko	Japan Advanced Inst. of Science and Tech
Kobayashi, Koichi	Hokkaido Univ
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Kloetzer, Marius	Tech. Univ. "Gheorghe Asachi" of Iasi
Mahulea, Cristian	Univ. De Zaragoza

Tu_2-T5	M/S Kungsholm
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Co-Chair: Kim, H. Jin	Seoul National Univ
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Gonzalez, Ramon	Univ. OF ALMERIA
Mahulea, Cristian	Univ. De Zaragoza
Kloetzer, Marius	Tech. Univ. "Gheorghe Asachi" of Iasi
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Kim, Suseong	Seoul National Univ
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Ranatunga, Isura	Univ. of Texas at Arlington
Cremer, Sven	Univ. of Texas at Arlington
Lewis, Frank	Automation & Robotics Res. Inst. TheUniversityofTexas At
Popa, Dan	The Univ. of Texas at Arlington
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Boubou, Somar	Kyushu Univ
Abdul Hafez, A. H.	Hasan Kalyoncu University
Suzuki, Einoshin	Kyushu Univ
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Stopforth, Riaan	Mechatronics and Robotics Res. Group (MR2G) Bio-Engineering
Bright, Glen	Univ. of KwaZulu Natal
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Jung, Youeyun	KAIST
Bang, Hyochoong	KAIST
Lee, Dongjin	Hanseou Univ

Tu_2-T6	Göteborg 1
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Chair: Wen, John	Rensselaer Pol. Inst
Co-Chair: Fainekos, Georgios	Arizona State Univ
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Guo, Meng	KTH Royal Inst. of Tech
Dimarogonas, Dimos V.	Royal Inst. of Tech
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He, Xiao	Tsinghua Univ
Zhou, D.H.	Tsinghua Univ
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Srinivasan, Seshadhri	Univ. of Sannio
Gurusamy, Saravanakumar	Univ. of Gondar
B., Subathra	Kalasalingam Univ
Buonopane, Furio	Univ. of Sannio, Benevento,
Ramaswamy, Srini	Univ. of Arkansas at Little Rock
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Kim, Kangjin	Arizona State Univ
Campbell, Joseph	Arizona State Univ
Zhang, Yu (Tony)	Arizona State Univ
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Duong, William	Arizona State Univ
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Woodward, Richard	Imperial Coll. London
Schultz, Simon	Imperial Coll. London
Vaidyanathan, Ravi	Imperial Coll. London
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Kruse, Daniel	Rensselaer Pol. Inst
Wen, John	Rensselaer Pol. Inst

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Chair: Christiansson, Anna-Karin	Univ. West
Co-Chair: Zhang, Yuming	Univ. of Kentucky
Organizer: Christiansson, Anna-Karin	Univ. West
Organizer: Zhang, Yuming	Univ. of Kentucky
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Huang, Ning	Beijing Univ. of Tech
Chen, Shujun	Beijing Univ. of Tech
Zhang, Yuming	Univ. of Kentucky
14:00-14:20	Tu_2-T7.3
<i>Weld Pool Oscillation Frequency in Pulsed Gas Tungsten Arc Welding with Varying Weld Penetration (I)</i> , pp. 401-406.	
Shi, Yu	Lanzhou Univ. of Tech
Zhang, Gang	Lanzhou Univ. of Tech
Li, Chunkai	Lanzhou Univ. of Tech
Gu, Yufen	Lanzhou Univ. of Tech
Fan, Ding	Lanzhou Univ. of Tech
14:20-14:40	Tu_2-T7.4
<i>Process Control of Gas Metal Arc Welding Processes by Optical Weld Pool Observation with Combined Quality Models (I)</i> , pp. 407-410.	
Lozano, Phillip	RWTH Aachen Univ. Welding and Joining Inst. (ISF)
14:40-15:00	Tu_2-T7.5
<i>Model Based Feedback Control of Gas Tungsten Arc Welding - an Experimental Study (I)</i> , pp. 411-416.	
Sikström, Fredrik	Univ. West
Christiansson, Anna-Karin	Univ. West
Lennartson, Bengt	Chalmers Univ. of Tech
15:00-15:20	Tu_2-T7.6
<i>Towards a More Robust Automated MAG Welding (I)</i> , pp. 417-418.	
Goecke, Sven	Brandenburg Univ. of Applied Sciences
Ebert-Spiegel, Michael	Brandenburg Univ. of Applied Sciences

Tu_3-T1	Banquet Hall
<b>Simulation Optimization and Building Automation III (Special Session)</b>	
Chair: Jia, Qing-Shan	Tsinghua Univ
Co-Chair: Fanti, Maria Pia	Pol. Di Bari
Organizer: Song, Jie	Peking Univ
Organizer: Jia, Qing-Shan	Tsinghua Univ
Organizer: Chen, Chun-Hung	
15:45-16:05	Tu_3-T1.1
<i>Power Prediction through Energy Consumption Pattern Recognition for Smart Buildings (I)</i> , pp. 419-424.	
Jin, Ming	UC Berkeley
Zhang, Lin	Tsinghua Univ
Spanos, Costas	Univ. of California, Berkeley
16:25-16:45	Tu_3-T1.3
<i>Modeling and Analyzing Occupant Behaviors in Building Energy Analysis Using an Information Space Approach (I)</i> , pp. 425-431.	
Carmenate, Triana	Florida International Univ
Rahman, Md Mahbubur	Florida International Univ
Leante, Diana	Florida International Univ
Bobadilla, Leonardo	Florida International Univ
Mostafavi, Ali	Florida International Univ
16:45-17:05	Tu_3-T1.4
<i>A Control Strategy for District Energy Management</i> , pp. 432-437.	
Fanti, Maria Pia	Pol. Di Bari
Mangini, Agostino Marcello	Pol. Di Bari
Roccotelli, Michele	Pol. of Bari
Ukovich, Walter	Univ. of Trieste
Pizzuti, Stefano	Enea
17:05-17:25	Tu_3-T1.5
<i>Incentive Compatible Mechanism for Coordinated Temperature Control in Multi-Occupant Buildings (I)</i> , pp. 438-443.	
Gupta, Santosh	Rensselaer Pol. Inst
Kar, Koushik	Rensselaer Pol. Inst
Mishra, Sandipan	RPI
Wen, John	Rensselaer Pol. Inst
17:25-17:45	Tu_3-T1.6
<i>A Multi-Grid Reinforcement Learning Method for Energy Conservation and Comfort of HVAC in Buildings (I)</i> , pp. 444-449.	
Li, Bocheng	Tsinghua Univ
Xia, Li	Tsinghua Univ

Tu_3-T2	Sandberg 1
<b>Sustainable Production (Regular Session)</b>	
Chair: Enoksson, Peter	Chalmers Univ. of Tech
Co-Chair: Burget, Pavel	Czech Tech. Univ. in Prague, FEE
15:45-16:05	Tu_3-T2.1
<i>Quantitative Evaluation of Coarse-To-Fine Loading Strategies for Material Rehandling</i> , pp. 450-455.	
Magnusson, Martin	Örebro Univ
Kucner, Tomasz	Örebro Univ
Lilienthal, Achim J.	Örebro Univ
16:05-16:25	Tu_3-T2.2
<i>Sustainable Supercapacitor Components from Cellulose</i> , pp. 456-458.	
Kuzmenko, Volodymyr	Chalmers Univ. of Tech
Bhaskar, Arun	Chalmers Univ. of Tech
Staaf, Henrik	Chalmers Univ. of Tech
Lundgren, Per	Chalmers Univ. of Tech
Enoksson, Peter	Chalmers Univ. of Tech
16:25-16:45	Tu_3-T2.3
<i>Fostering Sustainable Electronic Waste Management through Intelligent Sorting Equipment</i> , pp. 459-461.	
Barletta, Ilaria	Chalmers Univ. of Tech
Johansson, Björn	Chalmers Univ. of Tech
Cullbrand, Klas	Chalmers Industriteknik
Björkman, Max	Chalmers Industriteknik
Reimers, Johanna	ReFind Tech
16:45-17:05	Tu_3-T2.4
<i>Devices, Systems, and Methods for Automated Monitoring Enabling Precision Agriculture</i> , pp. 462-469.	
Das, Jnaneshwar	Univ. of Pennsylvania
Cross, Gareth	The Univ. of Pennsylvania
Qu, Chao	Univ. of Pennsylvania
Makineni, Anurag	Univ. of Pennsylvania
Tokekar, Pratap	Univ. of Pennsylvania
Mulgaonkar, Yash	Univ. of Pennsylvania
Kumar, Vijay	Univ. of Pennsylvania
17:05-17:25	Tu_3-T2.5
<i>Identification of Operations at Robotic Welding Lines</i> , pp. 470-476.	
Ron, Martin	Czech Tech. Univ. in Prague, FEE
Burget, Pavel	Czech Tech. Univ. in Prague, FEE
Fiala, Ondrej	Czech Tech. Univ. in Prague, FEE
17:25-17:45	Tu_3-T2.6
<i>Performance Analysis of Bernoulli Serial Production Lines with Switch-On/Off Machine Control</i> , pp. 477-482.	
Jia, Zhiyang	Univ. of Connecticut
Zhang, Liang	Univ. of Connecticut
Arinez, Jorge	General Motors Res. & Development Center
Xiao, Guoxian	General Motors Corp



Tu_3-T3	Sandberg 2
<b>Trajectory Optimization and Motion Planning (Regular Session)</b>	
Chair: Pellegrino, Felice Andrea	Univ. of Trieste, Trieste, Italy
Co-Chair: Yi, Jingang	Rutgers Univ
15:45-16:05	Tu_3-T3.1
<i>Inverse Kinematics Solution Algorithm for Continuous/Binary Hybrid Manipulator</i> , pp. 483-488.	
Konaka, Eiji	Meijo Univ
Maeda, Kensuke	Meijo Univ
16:05-16:25	Tu_3-T3.2
<i>Simultaneously Motion Planning and Manipulation of Multiple Nanowires under Electric-Fields in Fluid Suspension</i> , pp. 489-494.	
Yu, Kaiyan	Rutgers, the State Univ. of New Jersey
Yi, Jingang	Rutgers Univ
Shan, Jerry	Rutgers Univ
16:25-16:45	Tu_3-T3.3
<i>Optimizing Robot Trajectories for Automatic Robot Code Generation</i> , pp. 495-500.	
Gleeson, Daniel	Fraunhofer-Chalmers Res. Centre for Industrial Mathematics (
Bjorkenstam, Staffan	Fraunhofer-Chalmers Centre
Bohlin, Robert	Fraunhofer-Chalmers Res. Centre
Carlson, Johan	Fraunhofer-Chalmers Res. Centre
Lennartson, Bengt	Chalmers Univ. of Tech
16:45-17:05	Tu_3-T3.4
<i>Optimal Planning for Target Localization and Coverage Using Range Sensing</i> , pp. 501-508.	
Miller, Lauren	Northwestern Univ
Murphey, Todd	Northwestern Univ
17:05-17:25	Tu_3-T3.5
<i>Dominance Properties for the Unrestricted Block Relocation Problem and Their Application to a Branch-And-Bound Algorithm</i> , pp. 509-514.	
Tanaka, Shunji	Kyoto Univ
Mizuno, Fumitaka	Kyoto Univ
17:25-17:45	Tu_3-T3.6
<i>Inverse Kinematics by Means of Convex Programming: Some Developments</i> , pp. 515-520.	
Blanchini, Franco	Univ. of Udine
Fenu, Gianfranco	Univ. of Trieste
Giordano, Giulia	Univ. of Udine
Pellegrino, Felice Andrea	Univ. of Trieste, Trieste, Italy

Tu_3-T4	M/S Stockholm
<b>Discrete Event &amp; Hybrid Systems and Their Automation (Special Session)</b>	
Chair: Hu, Hesuan	Xidian Univ
Co-Chair: Stursberg, Olaf	Univ. of Kassel
Organizer: Hu, Hesuan	Xidian Univ
Organizer: Sreenivas, R. S.	Univ. of Illinois at Urbana-Champaign
15:45-16:05	Tu_3-T4.1
<i>Is Multicore Supervisory Controller Synthesis in the Ramadge-Wonham Framework Feasible? (I)</i> , pp. 521-525.	
Markovski, Jasen	GN Res
Hu, Hesuan	Xidian Univ
16:05-16:25	Tu_3-T4.2
<i>Real-Time Hybrid Simulation of Manufacturing Systems for Performance Analysis and Control (I)</i> , pp. 526-531.	
Saez, Miguel	Univ. of Michigan
Maturana, Francisco	Rockwell Automation
Barton, Kira	Univ. of Michigan at Ann Arbor
Tilbury, Dawn	Univ. of Michigan
16:25-16:45	Tu_3-T4.3
<i>Maximally Permissive Distributed Control of Automated Manufacturing Systems with Assembly Operations Using Petri Nets (I)</i> , pp. 532-538.	
Chen, Chen	Xidian Univ
Hu, Hesuan	Xidian Univ
16:45-17:05	Tu_3-T4.4
<i>Optimal Real-Time Pricing of Electricity with Consideration for Decrease in Price Effect (I)</i> , pp. 539-544.	
Kobayashi, Koichi	Hokkaido Univ
Hiraishi, Kunihiro	Japan Advanced Inst. of Science and Tech
17:05-17:25	Tu_3-T4.5
<i>Formal Modeling and Verification of Secure Mobile Agent Systems (I)</i> , pp. 545-550.	
Jiang, Mingyue	Zhejiang Sci-Tech. Univ
Ding, Zuohua	Zhejiang Sci-Tech. Univ
Zhou, MengChu	New Jersey Inst. of Tech
Zhou, Yuan	Zhejiang Univ. of Science and Tech
17:25-17:45	Tu_3-T4.6
<i>Decentralized Control of Distributed Discrete Event Systems with Linear Dependency Structure (I)</i> , pp. 551-557.	
Hillmann, Christian	Univ. of Kassel
Stursberg, Olaf	Univ. of Kassel



Tu_3-T5	M/S Kungsholm
<b>Object Localization and Grasping (Regular Session)</b>	
Chair: Thomas, Ulrike	Tech. Univ. of Chemnitz, Faculty of Electrical Engineering and Information Tech
Co-Chair: Carpin, Stefano	Univ. of California, Merced
15:45-16:05	Tu_3-T5.1
<i>A Fast Algorithm for Grasp Quality Evaluation Using the Object Wrench Space</i> , pp. 558-563.	
Liu, Shuo	Univ. of California, Merced
Carpin, Stefano	Univ. of California, Merced
16:05-16:25	Tu_3-T5.2
<i>Automated Detection, Localization, and Registration of Smart Devices with Multiple Robots</i> , pp. 564-571.	
Dames, Philip	Univ. of Pennsylvania
Kumar, Vijay	Univ. of Pennsylvania
16:25-16:45	Tu_3-T5.3
<i>Multi-Armed Bandit Models for 2D Grasp Planning with Uncertainty</i> , pp. 572-579.	
Laskey, Michael	Univ. of California, Berkeley
Mahler, Jeffrey	Univ. of California, Berkeley
McCarthy, Zoe	Univ. of California, Berkeley
Pokorny, Florian T.	KTH Royal Inst. of Tech
Patil, Sachin	Univ. of California Berkeley
van den Berg, Jur	Univ. of Utah
Kragic, Danica	KTH
Abbeel, Pieter	UC Berkeley
Goldberg, Ken	UC Berkeley
16:45-17:05	Tu_3-T5.4
<i>Pose Statistics for Eccentric Parts</i> , pp. 580-585.	
Panahi, Fatemeh	Utrecht Univ
Adler, Aviv	Princeton Univ
van der Stappen, Frank	Utrecht Univ
17:05-17:25	Tu_3-T5.5
<i>Flexible Assembly through Integrated Assembly Sequence Planning and Grasp Planning</i> , pp. 586-592.	
Thomas, Ulrike	Tech. Univ. of Chemnitz, Faculty of Electrical Engineer
Stouraitis, Theodoros	German Aerospace Center (DLR)
Roa, Maximo A.	German Aerospace Center, DLR
17:25-17:45	Tu_3-T5.6
<i>Optimizing the Parameters of Tilting Surfaces in Robotic Workcells</i> , pp. 593-599.	
Wan, Weiwei	National Inst. of AIST
Cheung, Ernest C. H.	The Univ. of Hong Kong
Pan, Jia	UC Berkeley
Harada, Kensuke	National Inst. of AIST

Tu_3-T6	Göteborg 1
<b>Autonomous Multi-Agent Systems (Regular Session)</b>	
Chair: Ayanian, Nora	Univ. of Southern California
Co-Chair: Ghidoni, Stefano	Univ. of Padova
15:45-16:05	Tu_3-T6.1
<i>A Quadratic Programming Approach for Coordinating Multi-AGV Systems</i> , pp. 600-605.	
Digani, Valerio	Univ. of Modena and Reggio Emilia
Hsieh, M. Ani	Drexel Univ
Sabattini, Lorenzo	Univ. of Modena and Reggio Emilia
Secchi, Cristian	Univ. of Modena & Reggio Emilia
16:05-16:25	Tu_3-T6.2
<i>Asynchronous Distributed Information Leader Selection in Robotic Swarms</i> , pp. 606-611.	
Luo, Wenhao	Carnegie Mellon Univ
Khatib, Shehzaman Salim	Carnegie Mellon Univ
Nagavalli, Sasanka	Carnegie Mellon Univ
Chakraborty, Nilanjan	Stony Brook Univ
Sycara, Katia	Carnegie Mellon Univ
16:25-16:45	Tu_3-T6.3
<i>A Mixed Integer Programming Model for Timed Deliveries in Multirobot Systems</i> , pp. 612-617.	
Kamra, Nitin	Univ. of Southern California
Ayanian, Nora	Univ. of Southern California
16:45-17:05	Tu_3-T6.4
<i>Jerk Bounded Velocity Planner for the Online Management of Autonomous Vehicles</i> , pp. 618-625.	
Perri, Simone	Univ. of Parma
Guarino Lo Bianco, Corrado	Univ. of Parma
Locatelli, Marco	Univ. of Parma
17:05-17:25	Tu_3-T6.5
<i>Situation Assessment and Behavior Decision for Vehicle/Driver Cooperative Driving in Highway Environments</i> , pp. 626-633.	
Noh, Samyeul	Electronics and Telecommunications Res. Inst. (ETRI)
An, Kyoungwan	ETRI
Han, Wooyong	ETRI
17:25-17:45	Tu_3-T6.6
<i>Autonomous Robotic System for Thermographic Detection of Defects in Upper Layers of Carbon Fiber Reinforced Polymers</i> , pp. 634-639.	
Antonello, Morris	Univ. of Padova
Ghidoni, Stefano	Univ. of Padova
Menegatti, Emanuele	The Univ. of Padua

Tu_3-T7		Göteborg 2
<b>Quantitative Methods in Semiconductor Manufacturing</b> (Special Session)		
Chair: Moench, Lars		Univ. of Hagen
Co-Chair: Lee, Chia-Yen		National Cheng Kung Univ
Organizer: Moench, Lars		Univ. of Hagen
Organizer: Yugma, Claude		Ec. Des Mines De Saint-Etienne
15:45-16:05		Tu_3-T7.1
<i>Controller Design and Optimal Tuning of a Wafer Handling Robot (I)</i> , pp. 640-646.		
Yu, Xiaowen		Univ. of California, Berkeley
Wang, Cong		Univ. of California, Berkeley
Zhao, Yu		Univ. of California, Berkeley
Tomizuka, Masayoshi		Univ. of California
16:05-16:25		Tu_3-T7.2
<i>Aggregate Production Planning with Small Data in TFT-LCD Manufacturing (I)</i> , pp. 647-648.		
Lee, Chia-Yen		National Cheng Kung Univ
16:25-16:45		Tu_3-T7.3
<i>Markovian Modeling of Multiclass Deterministic Flow Lines with Random Arrivals: The Case of a Single-Channel (I)</i> , pp. 649-654.		
Bae, Sang-Yoon		KAIST ISysE
Morrison, James		KAIST
16:45-17:05		Tu_3-T7.4
<i>Using Simulation-Based Optimization to Determine Production Strategies and Safety Stock Levels in Semiconductor Supply Chains (I)</i> , pp. 655-656.		
Forstner, Lisa Marie		Infineon Tech. AG
Moench, Lars		Univ. of Hagen
17:05-17:25		Tu_3-T7.5
<i>Scheduling Jobs on Parallel Machines with Qualification Constraints (I)</i> , pp. 657-658.		
Moench, Lars		Univ. of Hagen
Yugma, Claude		Ec. Des Mines De Saint-Etienne

## Technical Program for Wednesday August 26, 2015

Wednesday Plenary		Banquet Hall
<b>Richard Murray: Specification and Synthesis of Networked Control Systems with Application to Autonomous Vehicles</b> (Plenary Session)		
Chair: Reveliotis, Spiridon		Georgia Inst. of Tech
08:40-09:35		We_Plenary2..1
<i>Specification and Synthesis of Networked Control Systems with Application to Autonomous Vehicles*</i> .		
Murray, Richard		California Inst. of Tech
We_1.		Banquet Hall
<b>Best Conference/Application Paper Finalists</b> (Regular Session)		
Chair: Holloway, Lawrence		Univ. of Kentucky
10:00-10:20		We_1..1
<i>Plant Flexibility Planning: Problem Formulation and Performance Estimation (I)</i> , pp. 659-664.		
Zhao, Cong		Univ. of Wisconsin - Madison
Li, Jingshan		Univ. of Wisconsin - Madison
Huang, Ningjian		General Motors R & D Center
10:20-10:40		We_1..2
<i>Stochastic Customer Order Scheduling to Maximize Throughput</i> , pp. 665-670.		
Xu, Xiaoyun		Peking Univ. Coll. of Engineering
Zhao, Yaping		Peking Univ
Li, Haidong		Peking Univ
Wu, Manxi		Peking Univ
10:40-11:00		We_1..3
<i>Multi-Timescale Optimization between Distributed Wind Generators and Electric Vehicles in Microgrid (I)</i> , pp. 671-676.		
Huang, Qilong		Tsinghua Univ
Jia, Qing-Shan		Tsinghua Univ
Guan, Xiaohong		Xi'an Jiaotong Univ
11:00-11:20		We_1..4
<i>Automatic Spatial Planning for Machining Operations</i> , pp. 677-682.		
Nelaturi, Saigopal		Palo Alto Res. Center
Burton, Gregory		Palo Alto Res. Center
Fritz, Christian		Palo Alto Res. Center
Tolga, Kurtoglu		Palo Alto Res. Center
11:20-11:40		We_1..5
<i>An Automated System for Semantic Object Labeling with Soft Object Recognition and Dynamic Programming Segmentation</i> , pp. 683-690.		
Cleveland, Jonas		Univ. of Pennsylvania
Thakur, Dinesh		Univ. of Pennsylvania
Dames, Philip		Univ. of Pennsylvania
Phillips, Cody		Univ. of Pennsylvania
Kientz, Terry		Univ. of Pennsylvania
Daniilidis, Kostas		Univ. of Pennsylvania
Bergstrom, John		Walgreens
Kumar, Vijay		Univ. of Pennsylvania

11:40-12:00	We_1..6
<i>Progressive Segmentation for MRR-Based Feed-Rate Optimization in CNC Machining</i> , pp. 691-696.	
Chan, Ka Chun	The Chinese Univ. of Hong Kong
Wang, Charlie C.L.	The Chinese Univ. of Hong Kong

<b>We_2-T1</b>	Banquet Hall
<b>Simulation Optimization and Building Automation IV (Special Session)</b>	
Chair: Jia, Qing-Shan	Tsinghua Univ
Co-Chair: Morrison, James	KAIST
Organizer: Song, Jie	Peking Univ
Organizer: Jia, Qing-Shan	Tsinghua Univ
Organizer: Chen, Chun-Hung	

13:20-13:40	We_2-T1.1
<i>Showcase for a Satisfaction Based Group Comfort Control System for a Satisfaction Based Group Comfort Control System (I)</i> , pp. 697-698.	
Zhao, Qianchuan	Tsinghua Univ
Cheng, Zhijin	Tsinghua Univ
Wang, Fulin	Tsinghua Univ
Chen, Zheliang	Tsinghua Univ
Jiang, Yi	Tsinghua Univ
Zhong, Zhipeng	United Tech. Res. Center (China) Ltd., Shanghai

13:40-14:00	We_2-T1.2
<i>Test Bed of a Multiple-Chiller Plant for Centralized HVAC Systems (I)</i> , pp. 699-701.	
Liao, Yundan	City Univ. of Hong Kong
Huang, Gongsheng	City Univ. of Hong Kong
Jia, Qing-Shan	Tsinghua Univ

14:00-14:20	We_2-T1.3
<i>An Effective Learning Procedure for Multi-Fidelity Simulation Optimization with Ordinal Transformation (I)</i> , pp. 702-707.	
Chen, Ruidi	Fudan Univ
Xu, Jie	George Mason Univ
Zhang, Si	George Mason Univ
Chen, Chun-Hung	National Taiwan Univ
Lee, Loo Hay	National Univ. of Singapore

14:20-14:40	We_2-T1.4
<i>Predicting Individual Thermal Comfort Using Machine Learning Algorithms (I)</i> , pp. 708-713.	
Farhan, Asma Ahmad	Univ. of Connecticut
Pattipati, Krishna	Univ. of Connecticut
Wang, Bing	Univ. of Connecticut
Luh, Peter	Univ. of Connecticut

14:40-15:00	We_2-T1.5
<i>Lighting Control Actuator Design and Development for a ZigBee Network with a Web Server Mounted on Raspberry Pi</i> , pp. 714-719.	
Urgiles, Martin Vinicio	Univ. Pol. Salesiana
Arpi, Paul Esteban	Univ. Pol. Salesiana
Chacon-Troya, Diego Paul	Univ. Pol. Salesiana

15:00-15:20	We_2-T1.6
<i>A Reliable Range-Free Indoor Localization Method for Mobile Robots</i> , pp. 720-727.	
Lee, Yu-Cheol	Electronics/Telecomm. Res. Inst

<b>We_2-T2</b>	Sandberg 1
<b>Stochastic and Simulation Modeling in Healthcare Management (Special Session)</b>	
Chair: Xie, Xiaolei	Tsinghua Univ
Co-Chair: Li, Jingshan	Univ. of Wisconsin - Madison
Organizer: Song, Jie	Peking Univ
Organizer: Xie, Xiaolei	Tsinghua Univ
Organizer: Li, Jingshan	Univ. of Wisconsin - Madison

13:20-13:40	We_2-T2.1
<i>A Simulation-Optimization Approach for Capacity Planning and Appointment Scheduling of Blood Donors Based on Mathematical Programming Representation of Event Dynamics (I)</i> , pp. 728-733.	
Alfonso, Edgar	Univ. De La Sabana
Xie, Xiaolan	Ec. Des Mines De Saint Etienne
Augusto, Vincent	École Nationale Supérieure Des Mines De Saint-Étienne

13:40-14:00	We_2-T2.2
<i>Real Time Access Control of Patient Service in the Pediatrics Department (I)</i> , pp. 734-739.	
Qiu, Yunzhe	Peking Univ
Song, Jie	Peking Univ
Liu, Zekun	Department of Scientific & Engineering Computing, School of Math

14:00-14:20	We_2-T2.3
<i>Analysis of Multi-Patient Rapid Response Processes: An Iterative Approach (I)</i> , pp. 740-745.	
Xie, Xiaolei	Tsinghua Univ
Zeng, Zexian	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

14:20-14:40	We_2-T2.4
<i>Design Appointment Rule in Outpatient Department with Bulk Service (I)</i> , pp. 746-751.	
Bai, Yaqing	Peking Univ
Song, Jie	Peking Univ
Zhang, Guangyuan	Peking Univ

14:40-15:00	We_2-T2.5
<i>Using Hidden Semi-Markov Model for Learning Behavior in Smarthomes (I)</i> , pp. 752-757.	
Paris, Arnaud	Lab. PRISME, Univ. Orléans
Arbaoui, Selma	PRISME, Univ. of Orleans
Cislo, Nathalie Danielle Marianne	PRISME Lab. Orleans Univ
El Amraoui, Adnen	Univ. of Orleans
Ramdani, Nacim	Univ. Orléans

15:00-15:20 We\_2-T2.6

*A Cross-Platform Modular Software Solution for Automated Data Evaluation Applied in Elemental and Structural Mass Spectrometry*, pp. 758-763.

Fleischer, Heidi Univ. of Rostock  
 Adam, Martin Univ. of Rostock  
 Thurow, Kerstin Univ. Rostock

**We\_2-T3** Sandberg 2

**Scheduling and Optimization I (Regular Session)**

Chair: Camponogara, Eduardo Federal Univ. of Santa Catarina  
 Co-Chair: Schlette, Christian RWTH Aachen Univ

13:20-13:40 We\_2-T3.1

*Derivative-Free Optimization with Use of Problem Structure: Applications to Oil Production*, pp. 764-768.

Merlini Giuliani, Caio Univ. Federal De Santa Catarina  
 Camponogara, Eduardo Federal Univ. of Santa Catarina

13:40-14:00 We\_2-T3.2

*Exploiting Sparsity in the Discrete Mechanics and Optimal Control Method with Application to Human Motion Planning*, pp. 769-774.

Bjorkenstam, Staffan Fraunhofer-Chalmers Centre  
 Carlson, Johan Fraunhofer-Chalmers Res. Centre  
 Lennartson, Bengt Chalmers Univ. of Tech

14:00-14:20 We\_2-T3.3

*Optimal Scheduling of Campaigns on On-Line Forums*, pp. 775-780.

Karnik, Aditya General Motors  
 Dayama, Pankaj Indian Inst. of Science

14:20-14:40 We\_2-T3.4

*Utilization of Motion Planning Strategies for Micro-Optical Assembly*, pp. 781-786.

Schlette, Christian RWTH Aachen Univ  
 Rossmann, Juergen RWTH Aachen Univ

14:40-15:00 We\_2-T3.5

*Decentralized Ordinal Optimization (DOO) for Networked Systems*, pp. 787-792.

Hu, Peixian Tsinghua Univ  
 Chen, Xi Tsinghua Univ

15:00-15:20 We\_2-T3.6

*A Piecewise Linear-Quadratic Approximation for Production Optimization of Gas-Lifted Oil Fields*, pp. 793-798.

Ramos Neto, Lauvir Federal Univ. of Santa Catarina - UFSC  
 Camponogara, Eduardo Federal Univ. of Santa Catarina  
 Hardt Junior, Rubens Federal Univ. of Santa Catarina  
 Silva, Thiago Lima Federal Univ. of Santa Catarina

**We\_2-T4** M/S Stockholm

**Logic Control and Diagnosis of Discrete Event Systems (Special Session)**

Chair: Reveliotis, Spiridon Georgia Inst. of Tech  
 Co-Chair: Hadjicostis, Christoforos Univ. of Cyprus  
 Organizer: Hadjicostis, Christoforos Univ. of Cyprus  
 Organizer: Reveliotis, Spiridon Georgia Inst. of Tech  
 Organizer: Su, Rong Nanyang Tech. Univ

13:20-13:40 We\_2-T4.1

*Symbolic Computation of Boundary Unsafe States in Complex Resource Allocation Systems Using Partitioning Techniques (I)*, pp. 799-806.

Fei, Zhennan Chalmers Univ. of Tech  
 Akesson, Knut Chalmers Univ. of Tech  
 Reveliotis, Spiridon Georgia Inst. of Tech

13:40-14:00 We\_2-T4.2

*Modular and Systematic Design of Supervisory Control System Integrating PLC, SCADA and Task Routing for a Modular Production System (I)*, pp. 807-812.

Scotti, William Andrey Univ. Federal De Santa Catarina Faustino  
 Portilla, Nicole Beatriz Univ. Federal De Santa Catarina  
 de Queiroz, Max Hering Univ. Federal De Santa Catarina  
 Cury, José Eduardo Ribeiro Univ. Federal De Santa Catarina Cury

14:00-14:20 We\_2-T4.3

*Robust Codiagnosability of Discrete-Event Systems against Permanent Loss of Observations (I)*, pp. 813-818.

Tomola, Jean Hilaire Adebai Federal Inst. of Rio De Janeiro  
 Moreira, Marcos Vicente Univ. Federal Do Rio De Janeiro  
 Basilio, Joao Carlos Univ. Federal Do Rio De Janeiro  
 Carvalho, Lilian Kawakami Univ. Federal Do Rio De Janeiro, Departamento De Engenhar

14:20-14:40 We\_2-T4.4

*Advanced Selfloop Removal in Compositional Nonblocking Verification of Discrete Event Systems (I)*, pp. 819-824.

Malik, Robi Univ. of Waikato

14:40-15:00 We\_2-T4.5

*Discrete Event Supervisor Design and Application for Manufacturing Systems with Arbitrary Faults and Repairs (I)*, pp. 825-830.

Acar, Ayşe Nur Cankaya Univ  
 Schmidt, Klaus Cankaya Univ

15:00-15:20 We\_2-T4.6

*Distributed Diagnosis Using Predetermined Synchronization Strategies in the Presence of Communication Constraints (I)*, pp. 831-836.

Keroglou, Christoforos Univ. of Cyprus  
 Hadjicostis, Christoforos Univ. of Cyprus



We_2-T5	M/S Kungsholm
<b>Vision Systems (Regular Session)</b>	
Chair: Provost, Julien	Tech. Univ. München
Co-Chair: Falkman, Petter	Chalmers Univ. of Tech
13:20-13:40	We_2-T5.1
<i>Motion-Blur-Free Microscopic Video Shooting Based on Frame-By-Frame Intermittent Tracking</i> , pp. 837-842.	
Ueno, Takahiro	Hiroshima Univ
Gu, Qingyi	Hiroshima Univ
Aoyama, Tadayoshi	Hiroshima Univ
Takaki, Takeshi	Hiroshima Univ
Ishii, Idaku	Hiroshima Univ
Kawahara, Tomohiro	Kyushu Inst. of Tech
13:40-14:00	We_2-T5.2
<i>Calibration of Lens Distortion for Super-Wide-Angle Stereo Vision</i> , pp. 843-848.	
Kawanishi, Hajime	Univ. of Tsukuba
Hara, Yoshitaka	Univ. of Tsukuba
Tsubouchi, Takashi	Univ. of Tsukuba
Ohya, Akihisa	Univ. of Tsukuba
14:00-14:20	We_2-T5.3
<i>Discrete Event Dataflow As a Formal Approach to Specification of Industrial Vision Systems</i> , pp. 849-854.	
Semeniuta, Oleksandr	Gjøvik Univ. Coll
Falkman, Petter	Chalmers Univ. of Tech
14:20-14:40	We_2-T5.4
<i>Optimization-Based Automatic Parameter Tuning for Stereo Vision</i> , pp. 855-861.	
Cheung, Ernest C. H.	The Univ. of Hong Kong
Chan, Jocelyn	The Univ. of Hong Kong
Jiali, Wong	HKU
Pan, Jia	The Univ. of Hong Kong
14:40-15:00	We_2-T5.5
<i>Hand-Eye Calibration and Its Accuracy Analysis in Robotic Grinding</i> , pp. 862-867.	
Xie, He	Huazhong Univ. of Sci. and Tech
Pang, ChangTao	Aviation Key Lab. of Science and Tech. on Precision M
Li, Wenlong	School of Mechanical Scienceand Engineering, Huazhong Univ
Li, Yonghua	HUST-Wuxi Res. Inst. Wuxi, 214174, P.R. China
Yin, Zhouping	Professor, School of Mechanical Scienceand Engineering, Huazhong
15:00-15:20	We_2-T5.6
<i>Fuzzy Sliding Mode Control for Pan-Tilt-Zoom System Driven by Ultrasonic Motor</i> , pp. 868-873.	
Leng, Xuefei	Nanjing Univ. of Aeronautics and Astronautics
Wu, Songsen	Nanjing Univ. of Aeronautics and Astronautics
Du, Yanli	Nanjing Univ. of Aeronautics and Astronautics
Cheng, Yuehua	Nanjing Univ. of Aeronautics and Astronautics

We_2-T6	Göteborg 1
<b>Process Control (Special Session)</b>	
Chair: Johnsson, Charlotta	Lund Univ
Co-Chair: Christiansson, Anna-Karin	Univ. West
Organizer: Johnsson, Charlotta	Lund Univ
13:20-13:40	We_2-T6.1
<i>Implementation of an Asymmetric Relay Autotuner in a Sequential Control Language (I)</i> , pp. 874-879.	
Theorin, Alfred	Lund Univ
Berner, Josefin	Lund Univ
13:40-14:00	We_2-T6.2
<i>A Chance Constrained Programming Approach for Multi-Product Multi-Stage Integrated Production Planning under Internal and External Uncertainties (I)</i> , pp. 880-885.	
Lu, Shan	Zhejiang Univ
Su, Hongye	Zhejiang Univ
Johnsson, Charlotta	Lund Univ
Shao, Hanshan	Zhejiang Univ
Xie, Lei	Zhejiang Univ
14:00-14:20	We_2-T6.3
<i>A Performance Optimization Algorithm for Controller Reconfiguration in Fault Tolerant Distributed Model Predictive Control (I)</i> , pp. 886-891.	
Zakharov, Alexey	Aalto Univ
Zattoni, Elena	Univ. of Bologna
Yu, Miao	Aalto Univ
Sirkka-Liisa, Jämsä-Jounela	Aalto Univ. Department of Biotechnology and Chemical Tech
14:20-14:40	We_2-T6.4
<i>Chemical Process Control Practice – Some Examples and Observations (I)</i> , pp. 892-893.	
Forsman, Krister	Perstorp AB
Rönnerberg, Johan	Perstorp AB
14:40-15:00	We_2-T6.5
<i>A Cascade Control for Sander Automation System</i> , pp. 894-899.	
Chen, Zheng	Wichita State Univ
Naizer, Brent	Bake Hughes
15:00-15:20	We_2-T6.6
<i>Automation of a Laser Welding System for Additive Manufacturing (I)</i> , pp. 900-905.	
Hagqvist, Petter	Univ. West
Christiansson, Anna-Karin	Univ. West
Heralic, Almir	GKN Aerospace Sweden



<b>We_2-T7</b>	Göteborg 2
<b>Additive Manufacturing (Regular Session)</b>	
Chair: Huang, Qiang	Univ. of Southern California
Co-Chair: Scholl, Ingrid	FH Aachen Univ. of Applied Sciences
13:20-13:40	We_2-T7.1
<i>Bayesian Additive Modeling for Quality Control of 3D Printed Products</i> , pp. 906-911.	
Sabbaghi, Arman	Purdue Univ
Huang, Qiang	Univ. of Southern California
Dasgupta, Tirthankar	Harvard Univ
13:40-14:00	We_2-T7.2
<i>Predictive Modeling of In-Plane Geometric Deviation for 3D Printed Freeform Products</i> , pp. 912-917.	
Luan, He	Univ. of Southern California
Huang, Qiang	Univ. of Southern California
14:00-14:20	We_2-T7.3
<i>Out-Of-Plane Geometric Error Prediction for Additive Manufacturing</i> , pp. 918-923.	
Jin, Yuan	Univ. of Southern California
Qin, S. Joe	Univ. of Southern California
Huang, Qiang	Univ. of Southern California
14:20-14:40	We_2-T7.4
<i>Improving Additive Manufacturing by Image Processing and Robotic Milling</i> , pp. 924-929.	
Alhwarin, Faraj	FH Aachen Univ. of Applied Sciences
Ferrein, Alexander	FH Aachen Univ. of Applied Sciences
Gebhardt, Andreas	FH Aachen Univ. of Applied Sciences
Kallweit, Stephan	FH Aachen Univ. of Applied Sciences
Scholl, Ingrid	FH Aachen Univ. of Applied Sciences
Tedjasukmana, Osmund	FH Aachen Univ. of Applied Sciences
14:40-15:00	We_2-T7.5
<i>Notes on Extraterrestrial Applications of 3D-Printing with Regard to Self-Replicating Machines</i> , pp. 930-935.	
Ellery, Alex	Carleton Univ
15:00-15:20	We_2-T7.6
<i>Direct Computation of Minimal Rotation for Support Slimming</i> , pp. 936-941.	
Hu, Kailun	The Chinese Univ. of Hong Kong
Zhang, Xiaoting	The Chinese Univ. of Hong Kong
Wang, Charlie C.L.	The Chinese Univ. of Hong Kong

<b>We_3-T1</b>	Banquet Hall
<b>Best Student Paper Finalists (Regular Session)</b>	
Chair: Holloway, Lawrence	Univ. of Kentucky
15:45-16:05	We_3-T1.1
<i>Real-Time Trajectory Generation Using Model Predictive Control</i> , pp. 942-948.	
Ghazaei Ardakani, M. Mahdi	Lund Univ
Olofsson, Bjorn	Lund Univ
Robertsson, Anders	LTH, Lund Univ
Johansson, Rolf	Lund Univ
16:05-16:25	We_3-T1.2
<i>Automated Performance Tracking for Heat Exchangers in HVAC (I)</i> , pp. 949-954.	
Wang, Peng	Case Western Res. Univ
Tang, Xinyao	Case Western Res. Univ
Gao, Robert	Case Western Res. Univ
16:25-16:45	We_3-T1.3
<i>Modeling and Analysis of E-Visits in Primary Care (I)</i> , pp. 955-960.	
Zhong, Xiang	Univ. of Wisconsin Madison
Li, Jingshan	Univ. of Wisconsin - Madison
Bain, Philip	Dean Health System
Musa, Albert	Dean Health System
16:45-17:05	We_3-T1.4
<i>A Fault Diagnosis Method for HVAC Air Handling Units Considering Fault Propagation (I)</i> , pp. 961-966.	
Yan, Ying	Univ. of Connecticut
Luh, Peter	Univ. of Connecticut
Pattipati, Krishna	Univ. of Connecticut
<b>We_3-T2</b>	Sandberg 1
<b>Automation in Social Services (Regular Session)</b>	
Chair: Dotoli, Mariagrazia	Pol. Di Bari
Co-Chair: Fleischer, Heidi	Univ. of Rostock
15:45-16:05	We_3-T2.1
<i>Automated Evaluation of Urban Traffic Congestion Using Bus As a Probe</i> , pp. 967-972.	
Carli, Raffaele	Pol. Di Bari
Dotoli, Mariagrazia	Pol. Di Bari
Epicoco, Nicola	DEE-Pol. Di Bari
Angelico, Biagio	Pol. Di Bari
Vinciullo, Antonio	Pol. Di Bari
16:05-16:25	We_3-T2.2
<i>ASKNAO Apps Targeting at Social Skills Development for Children with Autism</i> , pp. 973-978.	
Khairul Salleh, Mohd Haziq	Univ. Teknologi MARA (UiTM)
Yussof, Hanafiah	Univ. Teknologi MARA
Shamsuddin, Syamimi	Univ. Teknologi MARA (UiTM) Shah Alam
Miskam, Mohd Azfar	Univ. Teknologi MARA (UiTM)
Omar, Abdul Rahman	Univ. Teknologi MARA (UiTM)

16:25-16:45 We\_3-T2.3

*A LC-MS Integration Approach in Life Science Automation: Hardware Integration and Software Integration*, pp. 979-984.

Chu, Xianghua	Univ. of Rostock
Fleischer, Heidi	Univ. of Rostock
Roddelkopf, Thomas	Univ. Rostock
Stoll, Norbert	Univ. of Rostock
Klos, Michael	Yaskawa Europe GmbH
Thurrow, Kerstin	Univ. Rostock

16:45-17:05 We\_3-T2.4

*Including Workers with Disabilities in Flow Shop Scheduling*, pp. 985-991.

Carniel, Germano C.	Univ. Federal Do Rio Grande Do Sul
Benavides, Alexander J.	Univ. Federal Do Rio Grande Do Sul
Ritt, Marcus	Inst. De Informática, Univ. Federal Do Rio Grande Do
Cristóbal, Miralles	Univ. Pol. De València

**We\_3-T3** Sandberg 2  
**Smart Manufacturing Performance Assurance – Metrics, Models and Methods** (Special Session)

Chair: Lu, Yan	National Inst. of Tech. and Standards
Co-Chair: Johansson, Björn	Chalmers Univ. of Tech
Organizer: Lu, Yan	National Inst. of Tech. and Standards
Organizer: Johansson, Björn	Chalmers Univ. of Tech

15:45-16:05 We\_3-T3.1

*Simulation-Based Production Scheduling with Optimization of Electricity Consumption and Cost in Smart Manufacturing Systems (I)*, pp. 992-997.

Sun, Zeyi	Univ. of Illinois at Chicago
Wei, Dong	Siemens Corp. Corp. Tech
Wang, Lingyun	Siemens
Li, Lin	Univ. of Illinois at Chicago

16:05-16:25 We\_3-T3.2

*Standards Landscape and Directions for Smart Manufacturing Systems (I)*, pp. 998-1005.

Lu, Yan	National Inst. of Tech. and Standards
Morris, Kc	NIST
Frechette, Simon	NIST

16:25-16:45 We\_3-T3.3

*The S-Model: A Digital Manufacturing System Combined with Autonomous Statistical Analysis and Autonomous Discrete-Event Simulation for Smart Manufacturing (I)*, pp. 1006-1011.

Nonaka, Youichi	Hitachi
Suginishi, Yuuichi	Hitachi, Ltd
Lengyel, Attila	HGST
Nagahara, Satoshi	Hitachi
Kamoda, Koji	Hitachi
Katsumura, Yoshiteru	Hitachi

16:45-17:05 We\_3-T3.4

*Model-Based Cyber-Physical System Integration in the Process Industry (I)*, pp. 1012-1017.

Song, Zhen	Siemens Corp. Res
Labalette, Philippe	Siemens Process Industries and Drives
Burger, Robin	Siemens AG
Klein, Wolfram	Siemens Corp. Tech
Nair, Sudev	Siemens Corp. Tech
Suresh, Suhas	Siemens Corp. Tech
Shen, Ling	Siemens Corp. Tech
Canedo, Arquimedes	Siemens

**We\_3-T4** M/S Stockholm  
**Industrial Informatics** (Regular Session)

Chair: Provost, Julien	Tech. Univ. München
Co-Chair: Sakakura, Takashi	Mitsubishi Electric Corp

15:45-16:05 We\_3-T4.1

*Design-To-Test Approach for Black-Box Testing of Programmable Controllers*, pp. 1018-1024.

Ma, Canlong	Tech. Univ. München
Provost, Julien	Tech. Univ. München

16:05-16:25 We\_3-T4.2

*A Speculation on a Framework That Provides Highly Organized Services for Manufacturing*, pp. 1025-1028.

Sakakura, Takashi	Mitsubishi Electric Corp
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16:25-16:45 We\_3-T4.3

*Robust Supervisor Synthesis for Automated Manufacturing Systems Using Petri Nets*, pp. 1029-1035.

Cheng, Yan	Xidian Univ
Hu, Hesuan	Xidian Univ
Liu, Yang	Nanyang Tech. Univ

16:45-17:05 We\_3-T4.4

*Fault-Tolerant Robust Capture Zone with Respect to Two Faults*, pp. 1036-1041.

Shinar, Josef	Tech. - Israel Inst. of Tech
Glizer, Valery Y.	Ort Braude Coll
Turetsky, Vladimir	Ort Braude Coll. of Engineering

<b>We_3-T5</b>		M/S Kungsholm
<b>Design Methods and Tools for Fast Evolving Production and Delivery of Personalized Products (Special Session)</b>		
Chair: Vogel-Heuser, Birgit		Tech. Univ. Munich
Co-Chair: Fantuzzi, Cesare		Univ. Di Modena E Reggio Emilia
Organizer: Fantuzzi, Cesare		Univ. Di Modena E Reggio Emilia
Organizer: Vogel-Heuser, Birgit		Tech. Univ. Munich
15:45-16:05		We_3-T5.1
<i>Engineering Method for the Integration of Modules into Fast Evolving Production Systems in the Process Industry (I)</i> , pp. 1042-1047.		
Holm, Thomas		Helmut Schmidt Univ. / Univ. of the Federal Armed Forc
Obst, Michael		Tech. Univ. Dresden
Fay, Alexander		Helmut-Schmidt-Univ. Hamburg
Urbas, Leon		Tech. Univ. Dresden
Hempen, Ulrich		WAGO Kontakttechnik GmbH
Albers, Thomas		WAGO Kontakttechnik GmbH
Kreft, Sven		WAGO Kontakttechnik GmbH
16:05-16:25		We_3-T5.2
<i>Towards Finding the Appropriate Level of Abstraction to Model and Verify Automated Production Systems in Discrete Event Simulation (I)</i> , pp. 1048-1053.		
Aicher, Thomas		Tech. Univ. München
Rehberger, Sebastian		Tech. Univ. München
Vogel-Heuser, Birgit		Tech. Univ. Munich
16:25-16:45		We_3-T5.3
<i>A SysML Profile Supporting Change Orders in Model Driven Engineering (I)</i> , pp. 1054-1059.		
Lin, Heng-You		Aalto Univ
Sierla, Seppo		Aalto Univ
Papakonstantinou, Nikolaos		VTT Tech. Res. Centre of Finland
Vyatkin, Valeriy		Aalto Univ
16:45-17:05		We_3-T5.4
<i>Flexible Agent-Based Planning and Adaptation of Material Handling Systems (I)</i> , pp. 1060-1065.		
Beyer, Theresa		Univ. of Stuttgart
Youseffar, Ramin		Univ. of Stuttgart
Abele, Sebastian		Univ. of Stuttgart
Bordasch, Manuel		Univ. of Stuttgart
Göhner, Peter		Univ. of Stuttgart
Wehking, Karl-Heinz		Univ. of Stuttgart

<b>We_3-T6</b>		Göteborg 1
<b>Sensor-Based System Informatics and Control (Special Session)</b>		
Chair: Yang, Hui		Univ. of South Florida
Co-Chair: Matta, Andrea		Shanghai Jiao Tong Univ
Organizer: Yang, Hui		Univ. of South Florida
15:45-16:05		We_3-T6.1
<i>Heterogeneous Recurrence T<sup>2</sup> Charts for Monitoring and Control of Nonlinear Dynamic Processes (I)</i> , pp. 1066-1071.		
Chen, Yun		Univ. of South Florida
Yang, Hui		Univ. of South Florida
16:05-16:25		We_3-T6.2
<i>Mobile Sensing and Network Analytics for Realizing Smart Automated Systems towards Health Internet of Things (I)</i> , pp. 1072-1077.		
Kan, Chen		Univ. of South Florida
Chen, Yun		Univ. of South Florida
Yang, Hui		Univ. of South Florida
16:25-16:45		We_3-T6.3
<i>Network Models for Monitoring High-Dimensional Image Profiles (I)</i> , pp. 1078-1083.		
Kan, Chen		Univ. of South Florida
Yang, Hui		Univ. of South Florida
16:45-17:05		We_3-T6.4
<i>A Self-Organizing Method for Predictive Modeling with Highly-Redundant Variables (I)</i> , pp. 1084-1089.		
Liu, Gang		Univ. of South Florida
Yang, Hui		Univ. of South Florida

<b>We_3-T7</b>		Göteborg 2
<b>Assembly Automation (Regular Session)</b>		
Chair: Hu, Hesuan		Xidian Univ
Co-Chair: Falkman, Petter		Chalmers Univ. of Tech
15:45-16:05		We_3-T7.1
<i>A Petri Net-Based Distributed Control of Automated Manufacturing Systems with Assembly Operations</i> , pp. 1090-1097.		
Yang, Yan		Xidian Univ
Hu, Hesuan		Xidian Univ
Liu, Yang		Nanyang Tech. Univ
16:05-16:25		We_3-T7.2
<i>Force Control for Industrial Robots and Its Applications to Assembly</i> , pp. N/A		
Kim, Min Jeong		Hyundai Heavy Industries Co. Ltd
Lim, Hyunkyu		Hyundai Heavy Industries Co. Ltd
Kim, Donghyeok		Hyundai Heavy Industries Co
16:25-16:45		We_3-T7.3
<i>An Approach for Knowledge-Driven Product, Process and Resource Mappings for Assembly Automation</i> , pp. 1104-1109.		
Ramis Ferrer, Borja		Tampere Univ. of Tech
Ahmad, Bilal		Univ. of Warwick
Lobov, Andrei		Tampere Univ. of Tech
Vera, Daniel Alexandre		Univ. of Warwick
Martinez Lastra, Jose Luis		Tampere Univ. of Tech
Harrison, Robert		Univ. of Warwick
16:45-17:05		We_3-T7.4
<i>Automatic Tuning of Impedance Parameter Using Configuration Space for Two Dimensional Assembly System</i> , pp. 1110-1117.		
Saksena, Abhilasha		Tohoku Univ
Nammoto, Takashi		Tohoku Univ
Kinugawa, Jun		Tohoku Univ
Kosuge, Kazuhiro		Tohoku Univ

## Technical Program for Thursday August 27, 2015

<b>Th_1-T1</b>		Banketten
<b>Power and Energy Systems (Regular Session)</b>		
Chair: Ferrarini, Luca		Pol. Di Milano
Co-Chair: Hu, Hesuan		Xidian Univ
08:40-09:00		Th_1-T1.1
<i>Performance Analysis of an Autonomous Induction Generator under Different Operating Conditions Using Predictive Control</i> , pp. 1118-1124.		
Ferrarini, Luca		Pol. Di Milano
Dao, Le Anh		Pol. Di Milano
Meddouri, Soufiane		Dipartimento Di Elettronica, Informazione E Bioingegneria, Pol
09:00-09:20		Th_1-T1.2
<i>Cyber-Physical Modeling of Compression Systems Using Hybrid Automata</i> , pp. 1125-1130.		
Schwung, Andreas		South Westfalia Univ. of Applied Sciences
09:20-09:40		Th_1-T1.3
<i>Design of Pitch Controller for Wind Turbines Using Time-Delay Estimation</i> , pp. 1131-1136.		
Kim, Jinwook		Korea Electrotechnology Res. Inst
Jongmin, Cheon		Korea Electrotechnology Res. Inst
Lee, Joocheon		Korea Electrotechnology Res. Inst
Jin, Maolin		RIST
09:40-10:00		Th_1-T1.4
<i>Charge Transfer and Energy Transfer Analysis of Battery Charge Equalization</i> , pp. 1137-1138.		
Han, Weiji		Univ. of Connecticut
Zhang, Liang		Univ. of Connecticut
10:00-10:20		Th_1-T1.5
<i>Capacity Optimization of Energy Storage Systems in Frequency Regulation</i> , pp. 1139-1144.		
Pan, Xin		Coll. of Engineering, Peking Univ
Xu, Hanchen		Univ. of Illinois at Urbana-Champaign
Song, Jie		Peking Univ
Lu, Chao		Tsinghua Univ
<b>Th_1-T2</b>		Sandberg 1
<b>Robotics and Automation in Health Care (Regular Session)</b>		
Chair: Solis, Jorge		Karlstad Univ. / Waseda Univ
Co-Chair: Wen, John		Rensselaer Pol. Inst
08:40-09:00		Th_1-T2.1
<i>Towards Developing a Multipurpose Assistive Vehicle Robot Capable of Providing Assistance to Caregivers and Support to Elderly People</i> , pp. 1145-1150.		
Solis, Jorge		Karlstad Univ. / Waseda Univ
Teshome, Teshome D.		Karlstad Univ
De la Rosa, Jose Pablo		Karlstad Univ



09:00-09:20 Th\_1-T2.2

*A Single-Use Haptic Palpation Probe for Locating Subcutaneous Blood Vessels in Robot-Assisted Minimally Invasive Surgery*, pp. 1151-1158.

McKinley, Stephen	Univ. of California-Berkeley
Garg, Animesh	Univ. of California, Berkeley
Kapadia, Rishi	Univ. of California-Berkeley
Sen, Siddarth	Univ. of California, Berkeley
Murali, Adithyavairavan	Univ. of California, Berkeley
Nichols, Kirk	Stanford Univ
Lim, Susan	Centre for Breast Screening and Surgery, Centre for Robotic Surg
Patil, Sachin	Univ. of California Berkeley
Abbeel, Pieter	UC Berkeley
Okamura, Allison M.	Stanford Univ
Goldberg, Ken	UC Berkeley

09:20-09:40 Th\_1-T2.3

*Modelling and Control of a Water Jet Cutting Probe for Flexible Surgical Robot*, pp. 1159-1164.

Morad, Samir	Imperial Coll. London
Ulbricht, Christian	Charing Cross Hospital
Harkin, Paul	Form Changing Structures
Chan, Justin	Imperial Coll. London
Parker, Kim	Imperial Coll. London
Vaidyanathan, Ravi	Imperial Coll. London

09:40-10:00 Th\_1-T2.4

*Human-Directed Robot Motion/Force Control for Contact Tasks in Unstructured Environments*, pp. 1165-1170.

Lu, Lu	Rensselaer Pol. Inst
Wen, John	Rensselaer Pol. Inst

10:00-10:20 Th\_1-T2.5

*Deforming Control for Object Transportation with Ferrofluid-Based Sheet-Type Soft Robot*, pp. 1171-1176.

Tone, Tadayuki	Univ. of Tsukuba
Suzuki, Kenji	Univ. of Tsukuba

**Th\_1-T3** Sandberg 2

**Scheduling and Optimization II** (Regular Session)

Chair: Houssin, Laurent	LAAS-CNRS
Co-Chair: Popa, Dan	The Univ. of Texas at Arlington

08:40-09:00 Th\_1-T3.1

*Mixed Integer Linear Programs and Tabu Search Approach to Solve Mixed Graph Coloring for Unit-Time Job Shop Scheduling*, pp. 1177-1181.

Kouider, Ahmed	Advanced Tech. Development Centre (CDTA)
Ait haddadène, Hacène	Univ. of Science and Tech. Houari Boumediene
Ourari, Samia	Advanced Tech. Development Centre
Oulamara, Ammar	Univ. of Lorraine

09:00-09:20 Th\_1-T3.2

*An Extension of the Heap of Picces Model for the Cyclic Jobshop Problem*, pp. 1182-1187.

Houssin, Laurent	LAAS-CNRS
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09:40-10:00 Th\_1-T3.4

*Production Planning for a Class of Batch Processing Problem*, pp. 1188-1193.

Shi, Zhongshun	Peking Univ
Liu, Pai	Peking Univ
Gao, Hongqiang	Peking Univ
Shi, Leyuan	Univ. of Wisconsin-Madison

10:00-10:20 Th\_1-T3.5

*How to Start-Up Dual-Arm Cluster Tools Involving a Wafer Revisiting Process*, pp. 1194-1199.

Pan, Chunrong	Jiangxi Univ. of Science and Tech
Zhou, MengChu	New Jersey Inst. of Tech
Qiao, Yan	Guangdong Univ. of Tech

**Th\_1-T4** M/S Kungsholm

**Machine Learning** (Regular Session)

Chair: McLoone, Sean	NUI Maynooth
Co-Chair: Faure, Jean-Marc	Ec. Normale Supérieure De Cachan

08:40-09:00 Th\_1-T4.1

*Knowledge-Based Cost Engineering for Industrial Robot Systems*, pp. 1200-1205.

Dietz, Thomas	Fraunhofer IPA
Pott, Andreas	Fraunhofer-Gesellschaft
Haegeler, Martin	Fraunhofer IPA
Verl, Alexander	Fraunhofer-Gesellschaft

09:00-09:20 Th\_1-T4.2

*Incorporation of Ordinal Optimization into Learning Automata for High Learning Efficiency*, pp. 1206-1211.

Zhang, Junqi	Tongji Univ
Wang, Cheng	Tongji Univ
Zang, Di	Tongji Univ
Zhou, MengChu	New Jersey Inst. of Tech

09:20-09:40 Th\_1-T4.3

*Malware Detection Via API Calls, Topic Models and Machine Learning*, pp. 1212-1217.

Govindaraju, Ganesh Sundar Kumar	Univ. OF HYDERABAD
Vadlamani, Ravi	IDRBT,
Nwogu, Ifeoma	U Buffalo
Govindaraju, Venu	UBuffalo

09:40-10:00 Th\_1-T4.4

*Slow Release Drug Dissolution Profile Prediction in Pharmaceutical Manufacturing: A Multivariate and Machine Learning Approach*, pp. 1218-1223.

Susto, Gian Antonio	Univ. of Padova
McLoone, Sean	NUI Maynooth

10:00-10:20 Th\_1-T4.5

*Detecting and Reducing Redundancy in Alarm Networks*, pp. 1224-1229.

Butters, Timothy Daniel	The Univ. of Manchester
Güttel, Stefan	The Univ. of Manchester
Shapiro, Jonathan	The Univ. of Manchester



Th_1-T5	Göteborg 1
<b>Emerging Technologies on Industrial Robotics and Manufacturing Automation (Special Session)</b>	
Chair: Zhang, George	ABB Inc
Co-Chair: Zhang, Biao	ABB Inc
Organizer: Zhang, Biao	ABB Inc
Organizer: Zhang, George	ABB Inc
08:40-09:00	Th_1-T5.1
<i>Cartesian Contact Force Estimation for Robotic Manipulators Using Kalman Filters and the Generalized Momentum (I)</i> , pp. 1230-1235.	
Wahrburg, Arne	ABB AG, Corp. Res. Germany
Morara, Elena	ETH
Cesari, Gianluca	ETH Zurich
Matthias, Björn	ABB AG, Corp. Res. Center Germany
Ding, Hao	ABB Corp. Res. Center Germany
09:00-09:20	Th_1-T5.2
<i>Multi-Objective Position Control for an Industrial Robot Calibration System (I)</i> , pp. 1236-1241.	
Jia, Yunyi	Michigan State Univ
Su, Chengzhi	Michigan State Univ
Deng, Zhihui	Michigan State Univ
Xi, Ning	Michigan State Univ
Li, Xiongzi	ABB Inc
Martinez, Carlos	ABB Inc
Zhang, George	ABB Inc
09:20-09:40	Th_1-T5.3
<i>Model-Based Temperature Estimation Methods in Design of Industrial Manipulator and Their Assessment (I)</i> , pp. 1242-1248.	
Lu, Qi	ABB (China) Limited
Tao, Guodong	Shanghai Jiaotong Univ
Zhao, Junhong	Shanghai Jiaotong Univ
09:40-10:00	Th_1-T5.4
<i>A Two-Phase Gripper to Reorient and Grasp (I)</i> , pp. 1249-1255.	
Chavan Dafle, Nikhil	Massachusetts Inst. of Tech
Mason, Matthew T.	Carnegie Mellon Univ
Staab, Harald	ABB Inc,
Rossano, Gregory	ABB Corp. Res
Rodríguez, Alberto	Massachusetts Inst. of Tech
10:00-10:20	Th_1-T5.5
<i>Efficient Grasp Synthesis and Control Strategy for Robot Hand-Arm System (I)</i> , pp. 1256-1257.	
Huang, Ming-Bao	National Taiwan Univ
Huang, Han-Pang	National Taiwan Univ
Cheng, Chih-Chun	National Taiwan Univ
Cheng, Ching-An	National Taiwan Univ

Th_1-T6	Göteborg 2
<b>Fuzzy and Intelligent Control Systems (Special Session)</b>	
Chair: Wang, Wen-June	National Central Univ
Co-Chair: Su, Shun-Feng	National Taiwan Univ. of Science and Tech
Organizer: Tsai, Ching-Chih	National Chung Hsing Univ
08:40-09:00	Th_1-T6.1
<i>Adaptive PD Fuzzy Control with Dynamic Learning Rate for Two-Wheeled Balancing Six Degrees of Freedom Robotic Arm (I)</i> , pp. 1258-1261.	
Su, Shun-Feng	National Taiwan Univ. of Science and Tech
Wang, Ko-Jie	National Taiwan Univ. of Science and Tech
Chen, Ming-Chang	National Taiwan Univ. of Science and Tech
Rudas, Imre	Budapest Tech. Pol. Inst
Tsai, Ching-Chih	National Chung Hsing Univ
09:00-09:20	Th_1-T6.2
<i>Observer Design for a Discrete-Time T-S Fuzzy System with Uncertainties (I)</i> , pp. 1262-1267.	
Vu, Van-Phong	National Central Univ
Wang, Wen-June	National Central Univ
09:20-09:40	Th_1-T6.3
<i>A Fuzzy Weighted Mean Aggregation Algorithm for Color Image Impulse Noise Removal (I)</i> , pp. 1268-1273.	
Chang, Jyh-Yeong	National Chiao Tung Univ
09:40-10:00	Th_1-T6.4
<i>A Hybrid Control Architecture for Autonomous Mobile Robot Navigation in Unknown Dynamic Environment (I)</i> , pp. 1274-1281.	
Nakhaeinia, Danial	Univ. of Ottawa
Payeur, Pierre	Univ. of Ottawa
Tang, Sai Hong	Univ. Putra Malaysia
Karasfi, Babak	Univ. Putra Malaysia
10:00-10:20	Th_1-T6.5
<i>A Noise and Size-Insensitive Integrity-Based Fuzzy C-Means Algorithm for Image Segmentation (I)</i> , pp. 1282-1287.	
Lin, Phen-Lan	Providence Univ
Huang, Po-Whei	National Chung Hsing Univ
Kuo, C.H.	National Chung Hsing Univ
<b>Thursday Plenary</b> Banquet Hall	
<b>Alf J. Isaksson: A Perspective on the Internet of Things, Services and People - in the Context of Sustainability and Optimization (Plenary Session)</b>	
Chair: Lennartson, Bengt	Chalmers Univ. of Tech
10:45-11:40	Th_Plenary3..1
<i>A Perspective on the Internet of Things, Services and People - in the Context of Sustainability and Optimization*</i> .	
Isaksson, Alf J.	ABB Corp. Res

Th_2-T1	Banquet Hall
<b>Simulation Optimization and Building Automation V (Special Session)</b>	
Chair: Hu, Hesuan	Xidian Univ
Co-Chair: Song, Jie	Peking Univ
Organizer: Song, Jie	Peking Univ
Organizer: Jia, Qing-Shan	Tsinghua Univ
Organizer: Chen, Chun-Hung	
13:20-13:40	Th_2-T1.1
<i>Sensing and Classifying Roadway Obstacles: The Street Bump Anomaly Detection and Decision Support System (I)</i> , pp. 1288-1293.	
Brisimi, Theodora	Boston Univ
Ariafar, Setareh, Setareh	Boston Univ. Coll. of Engineering Div. of Systems E
Ariafar	
Zhang, Yue	BOSTON Univ
Cassandras, Christos G.	Boston Univ
Paschalidis, Ioannis	Boston Univ
13:40-14:00	Th_2-T1.2
<i>Physical Field Reconstruction from CFD Database and Sparse Sensor Observations (I)</i> , pp. 1294-1299.	
Jiang, Chaoyang	Nanyang Tech. Univ
Soh, Yeng Chai	Nanyang Tech. Univ
Li, Hua	Nanyang Tech. Univ
Zhou, Hongming	Nanyang Tech. Univ
14:00-14:20	Th_2-T1.3
<i>From Passive Demand Response to Proactive Demand Participation (I)</i> , pp. 1300-1306.	
Yu, Nanpeng	Univ. of California, Riverside
Wei, Tianshu	Univ. of California, Riverside
Zhu, Qi	Univ. of California, Riverside
14:20-14:40	Th_2-T1.4
<i>Scheduling of Electrical Loads in Home Automation Systems</i> , pp. 1307-1312.	
Lennvall, Tomas	ABB
Rizvanovic, Larisa	ABB
Stoll, Pia	KTH
14:40-15:00	Th_2-T1.5
<i>Using Real-Time Sensing Data for Predicting Future State of Building Fires (I)</i> , pp. 1313-1318.	
Lin, Cheng-Chun	Concordia Univ
Zhao, Guanchao	Dept. of Building, Civil & Environmental Engineering, Concordia
Wang, Liangzhu	Concordia Univ
15:00-15:20	Th_2-T1.6
<i>A Hysteresis Model and Parameter Identification for MR Pin Joints Using Immune Particle Swarm Optimization</i> , pp. 1319-1324.	
Royel, Sayed	Univ. of Tech. Sydney (UTS)
Yu, Yang	Univ. of Tech. Sydney
Li, Yancheng	Univ. of Tech. Sydney
Li, Jianchun	Faculty of Engineering and Information Tech. Univ. Of
Ha, Q P	Univ. of Tech. Sydney

Th_2-T2	Sandberg 1
<b>Innovative Hardware and Software for Sustainable Industrial Robotics (Special Session)</b>	
Chair: Pellicciari, Marcello	Univ. of Modena and Reggio Emilia
Co-Chair: Bey, Niki	Tech. Univ. of Denmark
Organizer: Pellicciari, Marcello	Univ. of Modena and Reggio Emilia
Organizer: Lennartson, Bengt	Chalmers Univ. of Tech
13:20-13:40	Th_2-T2.1
<i>AREUS - Innovative Hardware and Software for Sustainable Industrial Robotics (I)</i> , pp. 1325-1332.	
Pellicciari, Marcello	Univ. of Modena and Reggio Emilia
Avotins, Ansis	Riga Tech. Univ
Bengtsson, Kristofer	Sekvensa
Berselli, Giovanni	Univ. Di Modena E Reggio Emilia
Bey, Niki	Tech. Univ. of Denmark
Lennartson, Bengt	Chalmers Univ. of Tech
Meike, Davis	Daimler AG
13:40-14:00	Th_2-T2.2
<i>Power Smoothing Approach within Industrial DC Microgrid with Supercapacitor Storage for Robotic Manufacturing Application (I)</i> , pp. 1333-1338.	
Senfelds, Armands	Riga Tech. Univ
Vorobyov, Maxim	Riga Tech. Univ
Meike, Davis	Daimler AG
Bormanis, Oskars	Riga Tech. Univ
14:00-14:20	Th_2-T2.3
<i>Increasing Position Accuracy and Energy Efficiency of Servo-Actuated Machinery (I)</i> , pp. 1339-1344.	
Pellicciari, Marcello	Univ. of Modena and Reggio Emilia
Berselli, Giovanni	Univ. Di Modena E Reggio Emilia
Balugani, Federico	Univ. Di Modena E Reggio Emilia
Gadaleta, Michele	Univ. of Modena and Reggio Emilia
14:20-14:40	Th_2-T2.4
<i>Energy Optimization of Multi-Robot Systems (I)</i> , pp. 1345-1350.	
Riazi, Sarmad	Chalmers Univ. of Tech
Bengtsson, Kristofer	Sekvensa
Wigström, Oskar	Chalmers Univ. of Tech
Vidarsson, Emma	Chalmers Univ. of Tech
Lennartson, Bengt	Chalmers Univ. of Tech
14:40-15:00	Th_2-T2.5
<i>How to Assess Sustainability in Automated Manufacturing</i> , pp. 1351-1356.	
Dijkman, Teunis Johannes	Tech. Univ. of Denmark
Rödger, Jan-Markus	Tech. Univ. of Denmark
Bey, Niki	Tech. Univ. of Denmark

15:00-15:20	Th_2-T2.6
<i>Energy Consumption Modeling within the Virtual Commissioning Tool Chain (I)</i> , pp. 1357-1362.	
Hauf, Dominik	Daimler AG
Meike, Davis	Daimler AG
Paryanto, Paryanto	Univ. of Erlangen-Nuremberg
Franke, Jörg	Univ. of Erlangen-Nuremberg

<b>Th_2-T3</b>	Sandberg 2
<b>Modeling, Performance Analysis, and Optimization of Discrete Event System (Special Session)</b>	
Chair: Jia, Qing-Shan	Tsinghua Univ
Co-Chair: Hadjicostis, Christoforos	Univ. of Cyprus
Organizer: Su, Rong	Nanyang Tech. Univ
Organizer: Jia, Qing-Shan	Tsinghua Univ
Organizer: Hadjicostis, Christoforos	Univ. of Cyprus
Organizer: Reveliotis, Spiridon	Georgia Inst. of Tech

13:20-13:40	Th_2-T3.1
<i>Synthesis of Time Optimal Accepting Traces Using Language Projection and Pruning (I)</i> , pp. 1363-1368.	
Ware, Simon	Nanyang Tech. Univ
Rong, Su	School of Electrical & Electronic Engineering Coll. Ofenginee

13:40-14:00	Th_2-T3.2
<i>Modeling and Control for Max-Plus-Linear Systems with Set-Based Constraints (I)</i> , pp. 1369-1374.	
David-Henriet, Xavier	Tech. Univ. Berlin
Raisch, Jörg	Tech. Univ. Berlin
Hardouin, Laurent	Univ. of Angers
Cotteceau, Bertrand	Univ. D'angers

14:00-14:20	Th_2-T3.3
<i>Local and Global Event-Based Optimization: Performance and Complexity (I)</i> , pp. 1375-1380.	
Wu, Zijian	Tsinghua Univ
Jia, Qing-Shan	Tsinghua Univ
Guan, Xiaohong	Xi'an Jiaotong Univ

14:20-14:40	Th_2-T3.4
<i>Local Modular Supervisory Control Applied to the Scheduling of Cluster Tools (I)</i> , pp. 1381-1388.	
Schafaschek, Germano	Univ. Federal De Santa Catarina
de Queiroz, Max Hering	Univ. Federal De Santa Catarina
Cury, José Eduardo Ribeiro	Univ. Federal De Santa Catarina
Cury	

14:40-15:00	Th_2-T3.5
<i>Wet-Etch Sequence Optimisation Incorporating Time Dependent Chemical Maintenance</i> , pp. 1389-1394.	
de Kruijff, Bas J.	TNO

15:00-15:20	Th_2-T3.6
<i>Optimization of Hybrid Petri Nets with Shared Variables (I)</i> , pp. 1395-1396.	
Lennartson, Bengt	Chalmers Univ. of Tech
Bengtsson, Kristofer	Sekvensa
Wigström, Oskar	Chalmers Univ. of Tech

<b>Th_2-T4</b>	M/S Kungsholm
<b>Process Mining: Theory and Applications (Special Session)</b>	
Chair: Xie, Xiaolan	Ec. Des Mines De Saint Etienne
Co-Chair: Augusto, Vincent	École Nationale Supérieure Des Mines De Saint-Étienne
Organizer: Xie, Xiaolan	Ec. Des Mines De Saint Etienne
Organizer: Augusto, Vincent	École Nationale Supérieure Des Mines De Saint-Étienne

13:20-13:40	Th_2-T4.1
<i>RTLS-Based Process Mining: Towards an Automatic Process Diagnosis in Healthcare (I)</i> , pp. 1397-1402.	
Miclo, Romain	AGILEA S.A.S / École Mines Albi Carmaux (EMAC)
Fontanilli, Franck	École Des Mines D'albi-Carmaux
Marquès, Guillaume	Toulouse Hospital
Bornert, Philippe	Agilea S.A.S
Lauras, Matthieu	Industrial Engineering Department of École Des Mines D'albi-Carm

13:40-14:00	Th_2-T4.2
<i>Process Mining towards Automated Learning: A Semantic Rule-Based Approach (I)</i> , pp. N/A	
Okoye, Kingsley	Univ. of East London
Tawil, Abdel-Rahman H.	Univ. of East London
Naeem, Usman	Univ. of East London
Lamine, Elyes	Univ. De Toulouse

14:00-14:20	Th_2-T4.3
<i>Discovery of Patient Pathways from a National Hospital Database Using Process Mining and Integer Linear Programming (I)</i> , pp. 1409-1414.	
Prodel, Martin	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
Jouaneton, Baptiste	Company HEVA
Lamarsalle, Ludovic	Company HEVA

14:20-14:40	Th_2-T4.4
<i>Evidential Data Mining for Length of Stay (LOS) Prediction Problem</i> , pp. 1415-1420.	
Nouaouri, Issam	LG12A-Univ. D'artois
Samet, Ahmed	BMBI
Allaoui, Hamid	LG12A-Univ. D'artois

14:40-15:00	Th_2-T4.5
<i>E-Mandi Implementation Based on Gale-Shapely Algorithm for Perishable Goods Supply Chain</i> , pp. 1421-1426.	
S, Prasanna Devi	Apollo Engineering Coll
Yadati, Narahari	Indian Inst. of Science
Viswanadham, Nukala	Indian Inst. of Science
S, Vinukiran	Apollo Engineering Coll
S, Manivannan	Dr MGR Educational & Res. Inst. Univ



15:00-15:20 Th\_2-T4.6

*Ad-Hoc Automated Teller Machine Failure Forecast and Field Service Optimization*, pp. 1427-1433.

Cheong, Michelle L.F.	Singapore Management Univ
Koo, Ping Shung	Singapore Management Univ
Chandrababu, Bharath	Singapore Management Univ

**Th\_2-T5** Götheborg 1

**Cloud-Based and Intelligent Manufacturing Technologies for Machine Tools (Special Session)**

Chair: Hung, Min-Hsiung	Chinese Culture Univ
Co-Chair: Chen, Chao-Chun	National Cheng Kung Univ
Organizer: Hung, Min-Hsiung	Chinese Culture Univ
Organizer: Chen, Chao-Chun	National Cheng Kung Univ
Organizer: Yang, Haw-Ching	National Kaohsiung First Univ. of Sci. and Tech

13:20-13:40 Th\_2-T5.1

*Extracting Relevant Features for Diagnosing Machine Tools Faults in Cloud Architecture (I)*, pp. 1434-1439.

Li, Yu-Yung	National Cheng Kung Univ
Yang, Haw-Ching	National Kaohsiung First Univ. of Sci. and Tech
Tieng, Hao	National Cheng Kung Univ
Cheng, Fan-Tien	National Cheng Kung Univ

13:40-14:00 Th\_2-T5.2

*Development of a Hybrid-Cloud-Based Wheel-Manufacturing Service with Ontology Inference for Machine Tools (I)*, pp. 1440-1445.

Chen, Chao-Chun	National Cheng Kung Univ
Hung, Min-Hsiung	Chinese Culture Univ
Lin, Yu-Chuan	National Cheng Kung Univ
Li, Po-Yi	National Cheng Kung Univ

14:00-14:20 Th\_2-T5.3

*Total Precision Inspection of Machine Tools with Virtual Metrology (I)*, pp. 1446-1447.

Tieng, Hao	National Cheng Kung Univ
Yang, Haw-Ching	National Kaohsiung First Univ. of Sci. and Tech
Cheng, Fan-Tien	National Cheng Kung Univ

14:20-14:40 Th\_2-T5.4

*Development of a Novel Cloud-Based Multi-Tenant Model Creation Scheme for Machine Tools (I)*, pp. 1448-1449.

Hung, Min-Hsiung	Chinese Culture Univ
Lin, Yu-Chuan	National Cheng Kung Univ
Wei, Chun-Fan	Inst. of Manufacturing Information and Systems, National Che
Cheng, Fan-Tien	National Cheng Kung Univ

14:40-15:00 Th\_2-T5.5

*Contouring Control of Biaxial Systems with Optimal and Adaptive Cross Coupling Controller (I)*, pp. 1450-1452.

Chen, Shyh-Leh	National Chung Cheng Univ
Yang, Jia-Hao	National Chung Cheng Univ

15:00-15:20 Th\_2-T5.6

*Resolving Automated Perception System Failures in Bin-Picking Tasks Using Assistance from Remote Human Operators*, pp. 1453-1458.

Kaipa, Krishnanand N.	Univ. of Maryland, Coll. Park
Thevendria Karthic, Srudeep Somnaath	Univ. of Maryland, Coll. Park
Shriyam, Shaurya	Univ. of Maryland, Coll. Park
Kabir, Ariyan M	Univ. of Maryland, Coll. Park
Langsfeld, Joshua	Univ. of Maryland
Gupta, Satyandra K.	Univ. of Maryland, Coll. Park

**Th\_2-T6** Götheborg 2

**Process Automation (Regular Session)**

Chair: Zhang, Yuming	Univ. of Kentucky
Co-Chair: Zhang, Xi	Coll. of Engineering, Peking Univ

13:20-13:40 Th\_2-T6.1

*Predictive Models for the Geometrical Characteristics of Channels Milled by Abrasive Waterjet*, pp. 1459-1464.

Nguyen, Thai	The Univ. of New South Wales
Wang, Jun	UNSW Australia (The Univ. of New South Wales)
Kwok, Ngai Ming	Univ. of New South Wales
Li, Huaizhong	Griffith Univ
Ha, Q P	Univ. of Tech. Sydney

13:40-14:00 Th\_2-T6.2

*Adaptive Predictive ANFIS Based Human Arm Movement Modeling and Control in Machine-Human Cooperative GTAW Process*, pp. 1465-1470.

Liu, Yukang	Univ. of Kentucky
Zhang, Yuming	Univ. of Kentucky

14:00-14:20 Th\_2-T6.3

*Consolidation of the Control System of a Chemical Polishing Machine for Superconducting RF Cavities Using the UNICOS-CPC Framework*, pp. 1471-1476.

Ferreira, Rodrigo	CERN
Blanchard, Sebastien	CERN
Gomes, Paulo	CERN
Vestergard, Henrik	CERN

14:20-14:40 Th\_2-T6.4

*A Prediction Method for Interior Temperature of Grain Storage Via Dynamics Model: A Simulation Study*, pp. 1477-1483.

Wang, Di	Coll. of Engineering, Peking Univ
Zhang, Xi	Coll. of Engineering, Peking Univ

14:40-15:00 Th\_2-T6.5

*Enhancement of Weld Coverage and Localization of Defect through Geometrical Modeling for Ultrasound Inspection of TKY Weld*, pp. 1484-1489.

Luo, Hong	Singapore Inst. of Manufacturing Tech
Lin, Wen-Jong	Singapore Inst. of Manufacturing Tech
Lin, Wei	SIMTech, A*STAR

15:00-15:20 Th\_2-T6.6

*Welding Parameter Optimization Based on Gaussian Process Regression Bayesian Optimization Algorithm*, pp. 1490-1496.

Sterling, Dillon	Texas State Univ
Sterling, Tyler	Texas State Univ. - San Marcos
Zhang, Yuming	Univ. of Kentucky
Chen, Heping	Texas State Univ

**Th\_3-T1** Banquet Hall

**Practice of Automation in Production and Operations Management (Special Session)**

Chair: Wang, Zheng	Southeast Univ
Co-Chair: Hayakawa, Tomohiko	Univ. of Tokyo
Organizer: Wang, Zheng	Southeast Univ

15:45-16:05 Th\_3-T1.1

*Cloud Asset-Enabled Prefabrication Transportation Service for Public Housing Production in Hong Kong (I)*, pp. 1497-1502.

Xu, Gangyan	The Univ. of Hong Kong
Zhong, Runyang	The Univ. of Hong Kong
Yang, Huibin	The Univ. of Hong Kong
Huang, George Q.	The Univ. of Hong Kong

16:05-16:25 Th\_3-T1.2

*Mixed Integer Programming Model and Heuristic Algorithm for Production Planning of Continuous Casting and Hot Rolling (I)*, pp. 1503-1508.

Lv, Minhu	Southeast Univ
Wang, Zheng	Southeast Univ
Chan, Felix T. S.	The Hong Kong Pol. Univ

16:25-16:45 Th\_3-T1.3

*A Multi-Threaded Memetic Packing Algorithm for the ISO Luggage Packing Problem*, pp. 1509-1514.

Shellshear, Evan	FCC
Carlson, Johan	Fraunhofer-Chalmers Res. Centre
Bohlin, Robert	Fraunhofer-Chalmers Res. Centre
Tafari, Sebastian	FCC

16:45-17:05 Th\_3-T1.4

*GPS Error Range Reduction Method Based on Linear Kinematic Model*, pp. 1515-1520.

Hayakawa, Tomohiko	Univ. of Tokyo
Ishikawa, Masatoshi	Univ. of Tokyo

17:05-17:25 Th\_3-T1.5

*Tool Health Monitoring for Wood Milling Process Using Airborne Acoustic Emission*, pp. 1521-1526.

Zafar, Tayyab	National Univ. of Sciences and Tech
Kamal, Khurram	National Univ. of Sciences and Tech
Sheikh, Zakaullah	PAEC, Islamabad
Mathavan, Senthan	Nottingham Trent Univ
Jehangir, Abdullah	National Univ. of Sciences and Tech
Ali, Usman	National Univ. of Sciences and Tech

**Th\_3-T2** Sandberg 1  
**Life Science and Health Care (Regular Session)**

Chair: Gans, Nicholas (Nick)	Univ. Texas at Dallas
Co-Chair: Chou, Jui Jen	National Taiwan Univ

15:45-16:05 Th\_3-T2.1

*Biological High Throughput Screening of 2D and 3D Cell Cultures for Future Industrial Up-Scaling*, pp. 1527-1532.

Gallert, Carolin	Celisca
Lehmann, Ricarda	Univ. of Rostock
Roddelkopf, Thomas	Univ. Rostock
Junginger, Steffen	Univ. Rostock
Thurrow, Kerstin	Univ. Rostock

16:05-16:25 Th\_3-T2.2

*Novel Optimal Cross-Coupling Control for the Power Wheelchair with Rim Motor*, pp. 1533-1538.

Chen, Shin-Hung	National Taiwan Univ
Yang, Chao Lin	National Taiwan Univ
Chou, Jui Jen	National Taiwan Univ

16:25-16:45 Th\_3-T2.3

*A Real-Time Soft Robotic Patient Positioning System for Maskless Head-And-Neck Cancer Radiotherapy*, pp. 1539-1545.

Ogunmolu, Olalekan	Univ. of Texas at Dallas
Gu, Xuejun	Univ. of Texas at Dallv
Jiang, Steve	Univ. of Texas Southwestern Medical Center
Gans, Nicholas (Nick)	Univ. Texas at Dallas

16:45-17:05 Th\_3-T2.4

*Automatically Detecting Fluid Intake Using Conductivity Measurements of Beverages in a Cup*, pp. 1546-1551.

Kreutzer, Joachim Friedrich	Tech. Univ. Muenchen
Ramesberger, Stefan	Tech. Univ. Muenchen
Reimer, Samuel M. F.	Tech. Univ. München
Entsfellner, Konrad	Tech. Univ. München
Lueth, Tim C.	Tech. Univ. München

**Th\_3-T3** Sandberg 2

**System Control and Optimization (Special Session)**

Chair: Chou, Jyh-Horng	National Kaohsiung Univ. of Applied Sciences
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Co-Chair: Tsai, Jinn-Tsong	National Pingtung Univ
Organizer: Tsai, Jinn-Tsong	National Pingtung Univ
Organizer: Chou, Jyh-Horng	National Kaohsiung Univ. of Applied Sciences

15:45-16:05 Th\_3-T3.1

*Application of Potential Field Method and Optimal Path Planning to Mobile Robot Control (I)*, pp. 1552-1554.

Juang, Jih-Gau	National Taiwan Ocean Univ
Lin, Chih-Min	Yuan Ze Univ



16:05-16:25	Th_3-T3.2
<i>Adaptive Neuro-Fuzzy Inference System with Evolutionary Algorithm for Designing Process Parameters of Color Filter (I)</i> , pp. 1555-1556.	
Tsai, Jinn-Tsong	National Pingtung Univ
Chou, Jyh-Horng	National Kaohsiung Univ. of Applied Sciences

16:25-16:45	Th_3-T3.3
<i>H-Infinity Robust Filter Design for a Class of Nonlinear Stochastic Poisson Jump Systems (I)</i> , pp. 1557-1561.	
Chen, Bor-Sen	Nat. Tsing Hua Univ
Wu, Chien-Feng	National Tsing Hua Univ

16:45-17:05	Th_3-T3.4
<i>Modeling and Optimizing Tensile Strength and Yield Point on Steel Bar by Artificial Neural Network with Evolutionary Algorithm (I)</i> , pp. 1562-1563.	
Tsai, Jinn-Tsong	National Pingtung Univ
Chou, Jyh-Horng	National Kaohsiung Univ. of Applied Sciences

17:05-17:25	Th_3-T3.5
<i>Motion Control with Minimization of a Boundary Off-Track for Non-Standard N-Trailers Along Forward-Followed Paths</i> , pp. 1564-1569.	
Michalek, Maciej, Marcin	Poznan Univ. of Tech. (PUT)

<b>Th_3-T4</b>	M/S Kungsholm
<b>Monitoring and Diagnosis (Regular Session)</b>	

Chair: Faure, Jean-Marc	Ec. Normale Supérieure De Cachan
Co-Chair: Wu, Hao	CNCERT

15:45-16:05	Th_3-T4.1
<i>A Simulation Based Approach to Detect Wear in Industrial Robots</i> , pp. 1570-1575.	
Sathish, V	ABB Global Industries and Services Limited
Ramaswamy, Srin	Univ. of Arkansas at Little Rock
Butail, Sachit	Univ. of Maryland

16:05-16:25	Th_3-T4.2
<i>On the Feasibility of a Monitoring System for the Friction Stir Welding Process: Literature Review and Experimental Study</i> , pp. 1576-1583.	
Le Moal, Gwénéolé	CIMPA
Darras, Franck	Stelia Aerospace
Chartier, David	Stelia Aerospace

16:25-16:45	Th_3-T4.3
<i>Qualitative Trend Clustering of Process Data for Fault Diagnosis</i> , pp. 1584-1588.	
Zhou, Bo	Tsinghua Univ
Ye, Hao	Tsinghua Univ

16:45-17:05	Th_3-T4.4
<i>Information Technology of Switched-Reluctance Motors Diagnostics Using Voltterra Kernels Moments</i> , pp. N/A	
Fomin, Oleksandr	Odessa National Pol. Univ
Pavlenko, Vitaliy	Odessa National Pol. Univ
Kravchenko, Evgenij	Odessa National Pol. Univ. Student

17:05-17:25	Th_3-T4.5
<i>Kalman Filter Based DNS Cache Poisoning Attack Detection</i> , pp. 1594-1600.	
Wu, Hao	CNCERT
Dang, Xianglei	CNCERT
Zhang, Liang	CNCERT
Wang, Lidong	CNCERT

<b>Th_3-T5</b>	Göteborg 1
<b>Robotic Micro and Nanomanipulation (Special Session)</b>	

Chair: Liu, Xinyu	McGill Univ
Co-Chair: Zhang, Li	The Chinese Univ. of Hong Kong
Organizer: Liu, Xinyu	McGill Univ
Organizer: Zhang, Li	The Chinese Univ. of Hong Kong
Organizer: Martel, Sylvain	Pol. Montreal

15:45-16:05	Th_3-T5.1
<i>Dipole Field Controlled Micro and Nanomanipulation (I)</i> , pp. 1601-1607.	
Latulippe, Maxime	Pol. Montréal
Martel, Sylvain	Pol. Montreal

16:05-16:25	Th_3-T5.2
<i>Cooperative Control of Multiple Untethered Magnetic Microrobots Using a Single Magnetic Field Source</i> , pp. 1608-1613.	
Torres, Nahum	Univ. of Texas at Arlington
Popa, Dan	The Univ. of Texas at Arlington

16:25-16:45	Th_3-T5.3
<i>Magnetic Control of AMB-1 Magnetotactic Bacteria for Micromanipulation (I)</i> , pp. 1614-1619.	
Yu, Jiangfan	The Chinese Univ. of Hong Kong
Yu, Huanbing	The Chinese Univ. of Hong Kong
Xu, Tiantian	UPMC Pierre and Marie Curie Univ
Zhang, Li	The Chinese Univ. of Hong Kong

16:45-17:05	Th_3-T5.4
<i>A MEMS Microgripper with Two-Axis Actuators and Force Sensors for Microscale Mechanical Characterization of Soft Materials (I)</i> , pp. 1620-1625.	
Juntian, Qu	McGill Univ
Zhang, Weize	McGill Univ
Jung, Andrew	McGill Univ
Sliva, Simon	McGill Univ
Liu, Xinyu	McGill Univ

17:05-17:25	Th_3-T5.5
<i>Extended High-Gain Observer for Robust Position Control of a Micro-Gripper in Air and Vacuum (I)</i> , pp. 1626-1631.	
Gaudenzi de Faria, Marcelo	FEMTO ST
Haddab, Yassine	FEMTO-ST
Le Gorrec, Yann	FEMTO-ST
Lutz, Philippe	FEMTO-ST

Th_3-T6	Göteborg 2
<b>Real-Time Applications (Regular Session)</b>	
Chair: Shi, Jane	GM R&D Center
Co-Chair: Lesage, Jean-Jacques	Ec. Normale Supérieure De Cachan
15:45-16:05	Th_3-T6.1
<i>Real-Time Grasping Planning for Robotic Bin-Picking and Kitting Applications</i> , pp. 1632-1637.	
Shi, Jane	GM R&D Center
Koonjul, Gurdayal Singh	General Motors
16:05-16:25	Th_3-T6.2
<i>Real-Time Collision Detection for Multiple Packaging Robots Using Monotonicity of Configuration Subspaces</i> , pp. 1638-1643.	
van Zon, Ronald	Eindhoven Univ. of Tech
Escudero-Rodrigo, Diego	OMRON Industrial Automation
Halperin, Dan	Tel Aviv Univ
Jovanovic, Igor	Omron
Vito, Raffaele	Omron
Silveira, Rodrigo	Univ. Pol. De Catalunya
Buchin, Kevin	TU Eindhoven, Netherland

16:25-16:45	Th_3-T6.3
<i>Overcoming Real Time Bond in High Level Simulation Environments</i> , pp. 1644-1648.	
Panciroli, Roberto	Tetra Pak Packaging Solutions SpA
Torelli, Carlo	Tetra Pak Packaging Solutions SpA
Barbieri, Giacomo	Univ. of Modena and Reggio Emilia
Borsari, Roberto	Tetra Pak Packaging Solution SpA
Fantuzzi, Cesare	Univ. Di Modena E Reggio Emilia
16:45-17:05	Th_3-T6.4
<i>Optimize the Flight Path for Airlines Using Real-Time Information</i> , pp. 1649-1649.	
Yen, Jin-Ru	National Taiwan Ocean Univ
17:05-17:25	Th_3-T6.5
<i>FPGA-Based Sensorless PMSM Speed Control Using Adaptive Extended Kalman Filters</i> , pp. 1650-1655.	
Nguyen Khanh, Quang	Univ. of Tech. Sydney, Australia
Doan Duc, Tung	Quy Nhon Univ
Ha, Q P	Univ. of Tech. Sydney