

# Session schedule of ISFA2022

JST (Japan Standard Time)	PDT (US Pacific Daylight Time)	EDT (US Eastern Daylight Time)	Sunday, July 3rd
16:00 - 17:00			Registration desk opens at Lobby, Raiosha
17:00 - 18:30	1:00 - 2:30	4:00 - 5:30	Welcome reception at Faculty lounge, Raiosha

JST	PDT	EDT	Monday, July 4th						
8:30 -			Registration desk opens at Lobby, Raiosha						
9:30 - 9:50	17:30 - 17:50	20:30 - 20:50	Opening address at Symposium space, Raiosha						
9:50 - 10:50	17:50 - 18:50	20:50 - 21:50	Plenary Talk 1, Project Professor Kouhei Ohnishi, Keio University, KISTEC "Real Haptics Toward Smart Manufacturing" at Symposium space, Raiosha						
10:50 - 11:00	18:50 - 19:00	21:50 - 22:00	Coffee break						
11:00 - 12:00	19:00 - 20:00	22:00 - 23:00	Plenary Talk 2, Professor Masayoshi Tomizuka, University of California, Berkeley "Intelligent Decision Making and Control for Versatile and Flexible Handling of Tasks by Industrial Robots"						
12:00 - 13:30	20:00 - 21:30	23:00 - 0:30	Lunch						
13:30 - 15:10	21:30 - 23:10	0:30 - 2:10	<table border="1"> <thead> <tr> <th>Room A (Symposium space)</th> <th>Room B (2nd floor)</th> <th>Room C (2nd floor)</th> </tr> </thead> <tbody> <tr> <td> <b>OS 10-1 OS 10. 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Digital Design and Manufacturing</b>                      ISFA2022-010 Hayato Kitagawa, Maruka Shimoyama, Iwao Yamaji, Daisuke Kono Fixture Design of Additive Manufacturing Workpiece for Post-Processes                      ISFA2022-011 Hikaru Nara, Hidefumi Wakamatsu, Yoshiharu Iwata Shape Prediction of Knitted Stitches Using Machine Learning Toward Wearing Simulation of Knitted Clothes                      ISFA2022-012 Haruhi Kajisaki, Yoshiharu Iwata, Koji Fujishiro, Hidefumi Wakamatsu Hierarchize Optimization of Product Systems Using Reinforcement Learning                      ISFA2022-013 Shuntaro Yamato, Anthony Beaucamp, Burak Sencer Novel Deconvolution Based Federate Scheduling Towards New Class of CAM for Time-Dependent Processes                      ISFA2022-014 Kotaro Yoshida, Hidefumi Wakamatsu, Takaharu Momosaki, Yoshiharu Iwata, Takahiro Kubo A Method of Predicting Performance of A Developable Surface for Its Design Efficiency                 </td> <td> <b>OS 4-1 OS 4. Flexible Automation in Manufacturing Systems</b>                      Chairs: Tatsuhiko Nishi (Okayama University), Robert X Gao (Case Western Reserve University)                      ISFA2022-021 Akhiro Tomozawa, Yoshiyuki Karuno Faster Implementation of An Iterative Improvement Procedure for Collection Weighted Items in Directed Bipartite Graphs                      ISFA2022-023 Daisuke Kokuryo, Toshiya Kalthara, Nobutada Fujii, Toru Murakami, Toyohiro Umeda, Houchi Mizuhara A Proposal of Multi-Objective Production Scheduling Method in Consideration with Factory Load Adjustment                      ISFA2022-024 Kohel Ouchi, Ziang Liu, Tatsuhiko Nishi Data-Driven Multi-Objective Evolutionary Optimization for Inventory Management in Complex and Large-Scale Supply Chains                      ISFA2022-026 Daisuke Yokozeki, Akio Hayashi, Naru Kawamura, Yoshitaka Morimoto Direct Control of Machine Tools Using 3DCAD                 </td> </tr> </tbody> </table>	Room A (Symposium space)	Room B (2nd floor)	Room C (2nd floor)	<b>OS 10-1 OS 10. 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8:00 -			Registration desk opens at Lobby, Raiosha						
9:00 - 10:00	17:00 - 18:00	20:00 - 21:00	Plenary Talk 3, Dr. Koji Yasui, Mitsubishi Electric Corporation "Advanced Manufacturing Using IoT, AI, 5G/6G, and Quantum Technologies to Survive in a Sustainable Society, - Cooperation with Digital, Decarbonization, EV, Semiconductor, and Quantum Markets -" at Symposium space, Raiosha						
10:00 - 10:20	18:00 - 18:20	21:00 - 21:20	Coffee break						
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	Yuriko Ikeda, Wataru Okochi, Teppi Maki, Kazuhiro Takaki, Noriyuki Shiohara, Takanori Mori, Yoko Hirose, Ryo Koike, Yasuhiro Kakimura	Basic Study on Gear Coating Technology Using Directed Energy Deposition	ISFA2022-065	Jinwen Sun, Shiyu Zhou, Dharmaraj Veeramani, Kaibo Liu	A Comparative Study of Autocorrelated Multivariate Process Monitoring	ISFA2022-032	John Shim, Xu Chen	Learning of Fast 3-Dimensional Laser-Material Interaction From 2-Dimensional Images
<b>Lunch</b>								
12:00 – 13:30	<b>Room A</b>			<b>Room B</b>			<b>Room C</b>	
13:30 – 14:50	<b>OS 6-1 OS 6. Manufacturing Controls and Machine Automation</b>	Chairs: Keiichi Shimae (Kobe University) Jiong Tang (University of Connecticut)	<b>OS 11-2 OS 11. Sensing and Information Extraction</b>	Chairs: Satoru Sakai (Shinshu University) Jian Liu (University of Arizona)	<b>OS 8-1 OS 8. Metrology for Manufacturing</b>	Chairs: Isamu Nishida (Kobe University) Gong Wang (New Jersey Institute of Technology)	Identification of A Novel Kinematic Model of Articulated Arm Coordinate Measuring Machines with Angular Positioning Deviation “Error Map” of Rotary Axes	
	ISFA2022-040	Qishen Zhao, Christopher Martin, Dongmei Chen, Wei Li	ISFA2022-065	Hisayoshi Muramatsu, Shuntaro Yamato	ISFA2022-050	Ryuichi Saito, Soichi Ibaraki	Identification of A Novel Kinematic Model of Articulated Arm Coordinate Measuring Machines with Angular Positioning Deviation “Error Map” of Rotary Axes	
	ISFA2022-038	Takamaru Suzuki, Toshiaki Hirogaki, Eiichi Aoyama	ISFA2022-067	Yunfei Zheng, Hongsen Pang, Hongbin Fang, Jian Xu	ISFA2022-051	Kensuke Toribe, Soichi Ibaraki, Takayuki Shinoda, Hikaru Uchida, Takayuki Kataoka	Identification of Kinematic Parameters for Estimation of Excavator Arm Top Position	
	ISFA2022-039	Shingo Tajima, Burak Sencer, Hayato Yoshioka	ISFA2022-068	Hongsen Pang, Xiaoxu Zhang, Jian Xu, Hongbin Fang	ISFA2022-052	Kianoosh Rossoli, Kira Shuebi, Soichi Ibaraki	A Novel Identification Method of Geometric Errors of A Six-Axis Robot with Sweeping Laser Measurement	
		Model Based Repetitive Control for Peeling Front Geometry Control in a Roll-to-Roll Peeling Process		Design of Periodic/Aperiodic Separation Filter for Harmonics Elimination and Its Application to Chatter Detection		An Angle Detection Algorithm for Worm-Like Locomotion Robots Working in Pipeline Environments		
		Improved Synchronous Accuracy of Linear and Rotary Axes Under A Constant Feed Speed Vector at The End Milling Point While Avoiding Torque Saturation		Inertial Based Zero Velocity Update Algorithm for Planar Worm-Like Locomotion Robots		A Store Layout Planning Method for Underground Shopping Streets Simulation Using Human Flow Data and Genetic Algorithm		
		Trajectory Generation for Dual-Drive Servo Systems for Laser Processing with Local Corner Smoothing		Nobutada Fujii, Kuriko Watanabe, Daisuke Kokuryo, Toshiya Kaihara, Makoto Son, Mariko Doi, Yoshiyasu Suzuki, Yoshio Yoshida				
14:50 – 15:10	<b>Coffee break</b>							
15:10 – 16:10	<b>Room A</b>			<b>Room B</b>			<b>Room C</b>	
16:10 – 18:00	<b>OS 6-2 OS 6. Manufacturing Controls and Machine Automation</b>	Chairs: Toshiaki Hirogaki (Doshisha University) Zhaoyan Fan (Oregon State University)			<b>OS 8-2 OS 8. Metrology for Manufacturing</b>	Chairs: Junichi Kaneko (Saitama University)	A Single-Axis Tracking Interferometer to Measure 2D Error Motions of Machine Tools	
	ISFA2022-041	Jia Lin, Tomoki Ono, Qingxin Zhu, Chengding Mao, Haruki Takahashi, Sho Morie, Sumika Arima			ISFA2022-053	Daichi Maruyama, Tsukasa Sato, Soichi Ibaraki	Detection Simulation of Magnetic Field on Magnetic Encoders	
	ISFA2022-042	Tohru Ishida, Yuya Sato, Kohji Yamada, Akira Mizobuchi, Yoshimi Takeuchi			ISFA2022-054	Chihiro Murayama, Hideki Aoyama, Kazuo Yamazaki	Optical Inverse Scattering Phase Retrieval Algorithm for Surface Topography Measurement by Optical Frequency Comb Scattering Spectroscopy	
	ISFA2022-043	Hayata Saito, Harumi Haraguchi			ISFA2022-055	Satoshi Itakura, Tsutomu Uenohara, Yasuhiro Mizutani, Yasuhiro Takaya		
		Multi-Criteria Optimization of N-Step Hybrid Flow-Shop Scheduling - Make-to-Order Cases with Batch Process -						
		Development of macroonon with electrical discharge Machining Function - Realization of Hydraulically Driven Self-Mobile Unit Using Working Fluid as Hydraulic Oil						
		Grey Wolf Optimization Using Enhanced Mutation						
		Oppositional Based Learning for Optimization Problems						
18:00 – 20:00	<b>Banquet at Hotel New Grand</b>							

Wednesday, July 6th									
JST	PDT	EDT							
8:00 –	Registration desk opens at Lobby, Raiosha								
9:00 – 10:00	17:00 – 18:00	20:00 – 21:00	Plenary Talk 4, Professor Jianjun Shi, Georgia Institute of Technology “In-Process Quality Improvement (IPQI) Enhanced Automation in Smart Manufacturing” at Symposium space, Raiosha						
10:00 – 10:20	18:00 – 18:20	21:00 – 21:20	Coffee break						
10:20 – 12:00	18:20 – 20:00	21:20 – 23:00	<b>Room A (Symposium space)</b>	<b>Room B (2nd floor)</b>			<b>Room C (2nd floor)</b>		
			<b>OS 12-1 OS 12. Smart/Sustainable Manufacturing</b>	<b>OS 5-1 OS 5. Industrial Robotics</b>	Chairs: Naoki Asakawa (Kanazawa University)	<b>OS 7-1 OS 7. Mechatronics and Precision Manufacturing</b>	Chairs: Daisuke Kono (Kyoto University) Lei Zhou (The University of Texas at Austin)	Data-Based Pre-Compensation of Ball-Screw Feed Drive Dynamics with Limited Model Knowledge	
			ISFA2022-075	ISFA2022-034	Mitchell R. Woodside, Douglas A. Bristow, Robert G. Landers	ISFA2022-044	Christopher Wilfred Indrarto, Alper Dumanli, Barak Sencer	Sequential Structure and Control Co-Design of Lightweight Precision Stages with Active Control of Flexible Modes	
			ISFA2022-076	ISFA2022-036	Eric Gillespie, David Javadian, Jiong Tang	ISFA2022-045	Jingjie Wu, Lei Zhou	Magnetically Levitated Precision Stage for XYZ Sample Positioning in X-Ray Microscopes	
			ISFA2022-072	ISFA2022-033	Md Moktadir Alam, Tasushi Nishi	ISFA2022-046	Ian L. Heyman, Malek Ibrahim, Jingjie Wu, Lei Zhou	A Mass-Air Stiffness Model for Coupled Dynamics of Near Field Acoustic Levitation Bearing	
			ISFA2022-035	ISFA2022-025	Toshiyuki Nagata, Yuichi Sawada	ISFA2022-048	Yaoke Wang, Ping Guo		
			ISFA2022-037	ISFA2022-037	Jing Zhang, Weilin Zhang, Liu Hong, Shane Johnson, Jaspreet Singh Dhupia, Zeeshan Qaiser	ISFA2022-047			
12:10 – 13:00	20:10 – 21:00	23:10 – 0:00	Award ceremony at Symposium space, Raiosha						
<b>Break</b>									
13:20 – 14:20	21:20 – 22:20	0:20 – 1:20	<b>Room A</b>	<b>Room B</b>			<b>Room C</b>		
			<b>OS 12-2 OS 12. Smart/Sustainable Manufacturing</b>	<b>OS 9-1 OS 9. Nanomanufacturing and Nanoinformatics</b>	Chairs: Yasuhiro Takaya (Osaka University)	<b>OS 7-2 OS 7. Mechatronics and Precision Manufacturing</b>	Chairs: Ryuta Sato (Nagoya University) Jiong Tang (University of Connecticut)	Study on The Vertical Vibration Behavior of Beam Caused by Driving Force	
			ISFA2022-073	ISFA2022-056	Sanjana Subramanian, Jian Cao, Kornel Ehmann	ISFA2022-047	Yang Li, Hayato Kojima, Shingo Tajima, Hayato Yoshioka	High Accuracy Tracking Control by Zero Phase Error Tracking Control Under Actuator Saturation	
			ISFA2022-074	ISFA2022-057	Shataro Kadoya, Yizhao Guan, Shiwel Ye, Yoshio Kanda, Masaki Michihata, Satoru Takahashi	ISFA2022-049	Takanori Yamazaki, Masayoshi Tomizuka		
			ISFA2022-077	ISFA2022-058	Daigo Natsuhara, Koki Shirai, Shunya Okamoto, Moeto Nagai, Takayuki Shibata, Masaru Ihira	ISFA2022-049			
					Development of Rolling Fundament Base Multi-Stage Logistics Model Considering Various Risks				
					A Method of Decision-Making Support for Flexible Operation and Management of Highly-Distributed Manufacturing Systems				
					Tool Wear Prediction in Drilling Process by Long Short-Term Memory with Cutting Force Changes				
					Additive Manufacturing of Bead-on-A-String Structures Using Near-Field Electrospinning				
					Proposal and Fundamental Verification of Optical Depth Measurement for Periodic Fine Structures				
					A Microfluidic-Based Quantitative Analysis System for The Detection of Multiple Nucleic Acid Targets				

Thursday, July 7th								
JST	PDT	EDT						
10:00 – 12:00	Technical Tour (Laboratory tour in Keio University)							