

PRESM 2023_ORAL Program : Plenary & Focus session

Topic / Organizer	Place	Focus	Focus No.	No.	Type	Start	End	Presenter	Country	Title
Monday, 17 July										
Registration Desk 11:00-17:30										
Lunch_Day1					Lunch	1200	1300			
Opening	Summit Hall				Opening	1420	1430			
Smart Technology for Machine Tools & Additive Manufacturing 1	Summit Hall	M1	M1-FA1	1	Regular (15')	1430	1445	Chunliang Kuo	TAIWAN	New Measures of Interfacial Energy and Entropy on Improving Geometry Deviation and Mechanical Properties When Selective Laser Melting of ANSI 316L Powders
Organized by		Focus A	M1-FA2	2	Regular (15')	1445	1500	Huitaek Yun	KOREA	Sound Monitoring and Applications for Smart Manufacturing Using MTConnect Framework and Artificial Intelligence
Dr. Dong Yoon Lee (Korea Institute of Industrial Technology, Korea) &			M1-FA3	3	Regular (15')	1500	1515	Chunhui Chung	TAIWAN	Development of Integrated Automatic Milling Process Planning System Using Convolutional Neural Network for 2.5D Parts
Dr. Jeong Seok Oh (Korea & Korea Institute of Machinery & Materials, Korea)			M1-FA4	4	Regular (15')	1515	1530	Brian Lee	KOREA	Parallel Expansion of Projection-based 3D Printer through Optical Expansion
Session Chair					Coffee Break	1530	1540			
POSTER I	Ocean Hall					1540	1630			
Break					Break	1630	1640			
Smart Technology for Machine Tools & Additive Manufacturing 2	Summit Hall	M2	M2-FB1	5	Keynote (25')	1640	1705	Chien-Sheng Liu	TAIWAN	Measurement of Geometric Errors in Rotary Axes on Five-axis Machine Tools
Organized by		Focus B	M2-FB2	6	Keynote (25')	1705	1730	Matej Sulitka	CZECH	Digital Twins of Machines and Processes for Smart Manufacturing
Dr. Dong Yoon Lee (Korea Institute of Industrial Technology Korea) &			M2-FB3	7	Regular (15')	1730	1745	Haseung Chung	USA	Scalable and Expeditious Additive Manufacturing (SEAM) Process and its Optimization for High Temperature Applications
Dr. Jeong Seok Oh (Korea & Korea Institute of Machinery & Materials, Korea)			M2-FB4	8	Regular (15')	1745	1800	Namhun Kim	KOREA	Influence of the Hot Isostatic Pressing (HIP) on the Different Crack Modes of Additively Manufactured CM247LC

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Tuesday, 18 July										
Registration Desk 08:10-17:30										
Advanced Material and Manufacturing	Summit Hall	T1	T1-FC1	9	Regular (15')	830	845	Namjung Kim	KOREA	Deep Generative Model with Multidimensional Discrete Latent Representation for High-fidelity Digital Materials
Organized by		Focus C	T1-FC2	10	Regular (15')	845	900	Ievgeniia Topolniak	GERMANY	Maskless Micropatterning of Polydopamine for Versatile Surface Functionalization
Session chairs:			T1-FC3	11	Regular (15')	900	915	Taekyung Lee	KOREA	Machine-learning-based Estimation for Compressive Anisotropy of Caliber-rolled Mg Rod
Prof. Namjung Kim (Gachon University, Korea)			T1-FC4	12	Regular (15')	915	930	Yu-Lin Kuo	TAIWAN	Duplex Process of Atmospheric Pressure Plasma Nitriding and Post-oxidation on JIS SKD11 Die Steel for Improved its Corrosion and Wear Resistance
Prof. Young-Jin Kim (KAIST, Korea)			T1-FC5	13	Regular (15')	930	945	Young-Jin Kim	KOREA	Direct Laser Writing of Laser-induced-graphene (LIG) Electro-optics
					Coffee Break	945	1000			
Future Mobility and its Smart Manufacturing	Summit Hall	T2	T2-FD1	14	Keynote (25')	1000	1025	Sangkee Min	USA	Real-time Inferencing and Anomaly Detection in Manual Assembly Operation Using Deep Learning
Organized by Prof. Sung-Tae Hong (University of Ulsan, Korea)		Focus D	T2-FD2	15	Keynote (25')	1025	1050	Seung Ki Moon	SINGAPORE	Key Enabling Technologies Digital Manufacturing in Smart Factory
Session Chair:			T2-FD3	16	Regular (15')	1050	1105	Yoon Ho Lee	KOREA	Nano-fabricated Solid Oxide Fuel Cells for Future Mobility Applications
			T2-FD4	17	Regular (15')	1105	1120	Shinhyuk Joo	USA	Life Cycle Analysis. Does Electrification Reduce CO2?
			T2-FD5	18	Regular (15')	1120	1135	Taeseon Lee	KOREA	Design of Vaporizing Foil Actuator Welded Joints for Automotive Applications
			T2-FD6	19	Regular (15')	1135	1150	Sung-Tae Hong	KOREA	Future Mobility and its Smart Manufacturing: Education Program for the Transition of Automotive Industries at Ulsan
Lunch_Day2					Lunch	1200	1300			
Plenary 1	Summit Hall			20	Plenary 1	1300	1340	Da-Jeng Yao	TAIWAN	Mobilizing Ecosystem for Digital Transformations and Smart Manufacturing: Experiences from ROC
					Break	1340	1350			
Autonomous Robotic System and Applications	Summit Hall	T3	T3-FE1	21	Keynote (25')	1350	1415	Sang C. Lee	KOREA	Paradigm Shift of Collaborative Robot Era from Simple following to Complex Human Robot Interaction
Organized by Prof. Jay-II Jeong (Kookmin University, Korea)		Focus E	T3-FE2	22	Regular (15')	1415	1430	Doo Seok Lee	KOREA	Learning-based Localization Using UWB for the Applications to Human-following Robot
Session Chair:			T3-FE3	23	Regular (15')	1430	1445	Young-Woo Park	KOREA	A Mobile Robot with Magnetic Force Control for Inclined Pipes
			T3-FE4	24	Regular (15')	1445	1500	Chih-Hsing Chu	TAIWAN	Augmented Reality Assisted Human-Robot Collaboration in Smart Manufacturing
			T3-FE5	25	Regular (15')	1500	1515	Heung-Ju Ahn	KOREA	Localization and Transformation for Indoor Navigation
					Coffee Break	1515	1525			
POSTER II	Ocean Hall					1525	1615			
					Break	1615	1625			
Green Process in Energy Conversion Systems	Summit Hall	T4	T4-FF1	26	Keynote (25')	1625	1650	Jonghyun Park	USA	Advanced Manufacturing Solutions for Sustainable Energy Storage
Organized by Prof. Suk Won Cha (Seoul National University, Korea)		Focus F	T4-FF2	27	Keynote (25')	1650	1715	Chunahua Zheng	CHINA	Management Strategies of new Energy Vehicles based on Machine Learning
Session Chair:			T4-FF3	28	Regular (15')	1715	1730	Jong Woo Choi	KOREA	Vehicle-to-grid and Its Optimal Dispatch Control for Grid Load Balancing
Prof. Gu Young Cho (Dankook University, Korea)			T4-FF4	29	Regular (15')	1730	1745	Kun Xu	CHINA	An Early Prediction Model for Remaining Useful Life of Lithium Batteries based on Signal Decomposition
Prof. Taehyun Park (Soongsil Universtiy, Korea)			T4-FF5	30	Regular (15')	1745	1800	Wonjong Yu	KOREA	Structural Evaluation of Transferred Ultra-thin Pt Nanomesh for Direct Application of Sputtered Electrolyte on Metal Substrate

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Wednesday, 19 July										
Registration Desk 08:10-17:30										
Emerging Biofabrication Technology for Medical Applications	Summit Hall	W1	W1-FG1	31	Keynote (25')	830	855	Yuya Morimoto	JAPAN	Biohybrid System Powered by Cultured Tissue Formed with Biofabrication Technology
Organized by Prof. Jinah Jang (POSTECH, Korea)		Focus G	W1-FG2	32	Keynote (25')	855	920	Yuta Kurashina	JAPAN	Heart Regeneration with iPS Cell-derived Cardiomyocytes Contributed by using Ultrasound and Hydrogel
Session Chair: Prof. Yun Jung Heo (Kyunghee University, Korea)			W1-FG3	33	Regular (15')	920	935	Dong Sung Kim	KOREA	Nanofiber Membranes for Reconstruction of Tissue Barriers and Generation of Uniform Organoids
			W1-FG4	34	Regular (15')	935	950	Yoshinobu Sugitani	JAPAN	Development and Characterization of the Electroactive Microwell Array Device to Detect Various Types and Forms of Circulating Tumor Cells
			W1-FG5	35	Regular (15')	950	1005	Jungbin Yoon	KOREA	Development of in vitro Multiorgan Model by Focusing on the Gut-kidney Axis in Secondary Hyperoxaluria Disease
					Coffee Break	1005	1015			
Micro/Nano Systems	Summit Hall	W2	W2-FH1	36	Keynote (25')	1015	1040	Soo Hyeon Kim	JAPAN	Advanced Biomedical Microsystems for Precise Liquid Biopsy Assay
Organized by		Focus H	W2-FH2	37	Regular (15')	1040	1055	Sung-Hoon Park	KOREA	Management of Temperature Coefficient of Resistance of Carbon Composite by Controlling Filler Alignment
Session Chair:			W2-FH3	38	Regular (15')	1055	1110	Joon-wan KIM	JAPAN	Study on Droplet Trapping Using an EHD Micropump
			W2-FH4	39	Regular (15')	1110	1125	Jonghyun Ha	KOREA	Texture Morphing of Flexible Fin Structures by Dynamic Capillarity
			W2-FH5	40	Regular (15')	1125	1140	Michitaka Yamamoto	JAPAN	Piezoelectric Stretchable Sensor with a Vertical-wavy Structure Fabricated by Combining Dip Coating and Micro-corrugation process
			W2-FH6	41	Regular (15')	1140	1155	Hyung Gyu Park	KOREA	Conformal Coating of Nanotube Arrays for Energy Applications
Lunch_Day3					Lunch	1200	1300			
Plenary 2	Summit Hall			42	Plenary 3	1300	1340	Haedo Jeong	KOREA	The State-of-the-art on Precision Manufacturing Processes in Semiconductor Industry
					Break	1340	1350			
Bioelectronics and Wearable Devices	Summit Hall	W3	W3-FI1	43	Keynote (25')	1350	1415	Martin Kaltenbrunner	AUSTRIA	Sustainable Soft Electronic and Robotic Systems
Organized by Prof. Beomjoon Kim (The University of Tokyo, Japan)		Focus I	W3-FI2	44	Keynote (25')	1415	1440	Naoji Matsuhisa	JAPAN	Skin-conformable Sensors and Displays for Future Wearable Technology
Session Chair: Prof. Beomjoon Kim (The University of Tokyo, Japan)			W3-FI3	45	Regular (15')	1440	1455	Jyoti Jaiswal	JAPAN	Design and Development of Miniaturized Microfluidic pH Sensors based on Sb/Sb2O3 for Biomedical Applications
			W3-FI4	46	Regular (15')	1455	1510	Jongho Park	JAPAN	Microneedle Array Patch (MAP): The Promising Biomedical Device for Total Personal Healthcare
					Coffee Break	1510	1520			
POSTER III	Ocean Hall					1520	1610			
					Break	1610	1620			
Cellular Mechanobiology: From Fundamental Science to Translational Applications in Precision Medicine	Summit Hall	W4	W4-FJ1	47	Keynote (25')	1620	1645	Satoru Kidoaki	JAPAN	Mechanobiological Design of a Postoperative-placing Matrix for Selective Capture and Elimination of Residual Cancer Cells
Organized by Prof. Toshiro Ohashi (Hokkaido University, Japan)		Focus J	W4-FJ2	48	Keynote (25')	1645	1710	Toshiro Ohashi	JAPAN	Mechanical Properties of Cellular Primary Cilia and Mechanosensing Mechanism
Session Chair: Jennifer H. Shin (KAIST, Korea)			W4-FJ3	49	Regular (15')	1710	1725	Jeonghyun Kim	JAPAN	Biomechanical Analysis of Osteocytic Spheroids for Bone Tissue Engineering Applications
			W4-FJ4	50	Regular (15')	1725	1740	Jennifer Shin	KOREA	Classification of Cancer-Associated Fibroblasts with Morphodynamic and Motile Feature-Based AI Platform
			W4-FJ5	51	Regular (15')	1740	1755	Hyoryung Nam	KOREA	Assembled Trachea Epithelium and Blood Vessel Endothelium Modular Study for Asthma

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Thursday, 20 July										
Registration Desk 08:10-17:30										
Korea-Germany Intelligent Manufacturing System	Summit Hall	H1	H1-FK1	52	Keynote (25')	830	855	Steven Schmid	USA	Additive Manufacturing of Silicon Carbide
Organized by Prof. Sung-Hoon Ahn (Seoul National University, Korea)		Focus K	H1-FK2	53	Regular (15')	855	910	Daniel Zontar	GERMANY	
Session Chair:			H1-FK3	54	Regular (15')	910	925	Quan Yingjun	KOREA	Structural Color Sensor Detecting via Image Processing Algorithm with RGB to Hue Transformation
			H1-FK4	55	Regular (15')	925	940	Toni Christopher Voebel	GERMANY	From Discrete to Continuous Production in Hydrogen Technology
			H1-FK5	56	Regular (15')	940	955	David Briesenick	GERMANY	Efficient Net Shape Forming of High-strength Sheet Metal Parts by Transversal Compression Drawing
					Coffee Break	955	1010			
Precision Measurement for Precision Engineering	Summit Hall	H2	H2-FL1	57	Keynote (25')	1010	1035	Yuki Shimizu	JAPAN	Precise Evaluation of a Scale Grating for Precision Metrology
Organized by Dr. Jonghan Jin (Korea Research Institute of Standards and Science, Korea)		Focus L	H2-FL2	58	Keynote (25')	1035	1100	Sheng-Shian Li	TAIWAN	MEMS Vibration Sensors for Smart Manufacturing
Session Chair: Dr. Jonghan Jin (Korea Research Institute of Standards and Science, Korea)			H2-FL3	59	Regular (15')	1100	1115	Jungjae Park	KOREA	Performance Evaluation of Multi-layer Thin-film Thickness Measurement Using Spectral Reflectometry
			H2-FL4	60	Regular (15')	1115	1130	June Park	KOREA	Measurement of the Refractive Index of a Glass Lens Materials under Controlled Molding Conditions
			H2-FL5	61	Regular (15')	1130	1145	SangHeon Lee	KOREA	Hexapod for Mirror Pose Adjustment in Nanoscale
			H2-FL6	62	Regular (15')	1145	1200	Jonghan Jin	KOREA	Analysis on Thickness and Refractive Index of Thin-films using Deep-learning Algorithm
Lunch _Day4						Lunch	1200	1300		
Plenary 3										
	Summit Hall			63	Plenary 3	1300	1340	Masanori Kunieda	JAPAN	Adventures with EDM and Forthcoming Adventures for Future
					Break	1340	1350			
Ultra Precision Machining & Fabrication	Summit Hall	H3	H3-FM1	64	Keynote (25')	1350	1415	Jun Shimizu	JAPAN	Enhancement of Tribological Properties by Surface Texturing Using Vibration-assisted Cutting
Organized by Prof. Geon Hee Kim (Hanbat National University, Korea)		Focus M	H3-FM2	65	Keynote (25')	1415	1440	Hao Wang	SINGAPORE	Advances in Augmented Ultraprecision Machining Technology
Session Chair:			H3-FM3	66	Keynote (25')	1440	1505	Kazuto Yamauchi	JAPAN	Catalyst Referred Etching Method for High Precision Optical Elements
Prof. Daewook Kim (University of Arizona, USA)			H3-FM4	67	Regular (15')	1505	1520	Daewook Kim	USA	Infrared Deflectometry for Rapid Freeform Optics Manufacturing Process
			H3-FM5	68	Regular (15')	1520	1535	Hyun-Joon Shin	KOREA	Effect of Surface and Alignment Errors of a Mirror in X-ray Beamline in Synchrotron Radiation Facility Estimated by Ray Tracing with Oasys
			H3-FM6	69	Regular (15')	1535	1550	Denni Kurniawan	BRUNEI	Electromagnet Solenoid Density and Spool Diameter Effect on Aim Accuracy of Magnetically Assisted Deep Hole Drilling
			H3-FM7	70	Regular (15')	1550	1605	Ki-Yong Oh	KOREA	Multiphysics Modelling of Induction Motor and Its Vibration Analysis for Bearing Fault Diagnostics
					Coffee Break	1605	1615			
POSTER IV										
	Ocean Hall					1615	1705			
					Break	1705	1730			
Banquet										
	Summit Hall				150	1730	2000	PRESM2023 Award & Farewell		