

Program

Lem21 in Osaka
2-4 December 2009

Dec. 2 nd

10:40 - 10:45 Opening ceremony					
MOホール					
10:45 - 11:45 Plenary speech					
Lunch					
13:20	Room A	Room B	Room C	Room D	Room E
	Chair [A1] 094_05-08 : Optimal Tool Path Generation Method for Freeform Surface Machining : Zuanshi HARANUD, Jiang ZHU, Tomohisa TANAKA, Yoshio SAITO :	Chair [B1] 004_01-01 : Study on Accuracy Compensation of Machining Center Based on Measurement Results of Machined Workpiece -Evaluation of Accuracy of 5-axis Controlled Machining Center- : Yoshitaka Morimoto, Shinji Tada and Yusuke Muroichi :	Chair [C1] 036_16-01 : Tool Path Generation for 5-Axis Control Machining Considering the Quality of Machined Surface : Tatsuya HIKICHI, Keiichi NAKAMOTO, Tohru ISHIDA, Yoshimi TAKEUCHI :	Chair [D1] 042_18-01 : Analysis and Compensation of Contour Error by Using Reference Model of Feed Drive for NC Machine Tools : Kotaro NAGAOKA, Atsushi MATSUBARA, Cefu HONG, Atsushi IIZUKA, and Tomonori SATO :	Chair [E1] 012_22-02 : Optimization Design of Cooling channel of Block Laminated Mold by using Genetic Algorithm : Jianguo LIANG, Hiroyuki NARAHARA, Hiroshi KORESAWA and Hiroshi SUZUKI :
13:40	[A2] 105_05-09 : Tool Path Generation to Protect Soft Tissue with Multi-axis Milling Machine : Taiga NAKANO, Naohiko SUGITA, Yoshikazu NAKAJIMA, Takeharu KATO, Kazuo FUJIWARA, Nobuhiro ABE, Toshifumi OZAKI, Masahiko SUZUKI and Mamoru MITSUISHI :	[B2] 044_01-02 : Estimation of Environmental Impact on Desktop-Size Multifunctional Machine Tools by LCA : Masafumi SUZUKI, Toshiki HIROGAKI, Eiichi AOYAMA, Keiji OGAWA, Masatoshi IWAMA :	[C2] 037_16-02 : Efficient 5-axis Control Drilling for a Large Number of Holes : Koji HASEGAWA, Keiichi NAKAMOTO, Tohru ISHIDA, Yoshimi TAKEUCHI :	[D2] 054_18-02 : Compensation of Dynamic Dislocation For Micro Milling Machine Tools : Eckart UHLMANN, Joerg ESSMANN :	[E2] 040_22-04 : Basic Performance Analysis of Cooling Pipe with a Changing Cross Section : Seiji NAGASAWA, Tohru ISHIDA, Masahiko KITA, Keiichi NAKAMOTO and Yoshimi TAKEUCHI :
14:00	[A3] 139_05-12 : Tool Path Generation for 5-Axis Control Milling Based on Area Division Method : Takehisa KOIZUMI, Keiichi NAKAMOTO, Tohru ISHIDA and Yoshimi TAKEUCHI :	[B3] 078_01-04 : Measurement of Spindle Stiffness by using a Magnet Loader : Taku YAMAZAKI, Atsushi MATSUBARA, Tomoya FUJITA, Yusuke KOIKE, Toshiyuki MURAKI, Kohel ASANO, Kazuyuki KAWASHIMA :	[C3] 095_16-05 : Generalization of Identification Method of Geometric Deviations for Five-axis Machining Centers with a Tilting-rotary Table : Naoki MIYAMA, Tomoyuki SAIKI, Chengri CUI, Masaomi TSUTSUMI :	[D3] 061_18-03 : Development of Quadrant Glitch Compensation Corresponding to Friction Force Change : Takuro HIGUCHI, Ryuta SATO, Masaomi TSUTSUMI :	[E3] 150_22-09 : Dynamic Characteristics Design System for 3D Nanostructure Fabricated by FIB-CVD : S.Nishi, R.Kometani, S.Warisawa and S.Ishihara :
14:20	[A4] 114_05-10 : Reorganizable Assembly Model and Its Reorganizing Approach for Assembly Planning : Xiaoyi WANG, Quanxian WANG, Yoshio SAITO, Jiang ZHU, Tomohisa TANAKA :	[B4] 102_01-05 : Quantitative Measurement Method of Contact Stiffness of the Joint with Different Material Combination : Shinji SHIMIZU, Kyoko NAKAMURA and Haruhisa SAKAMOTO :	[C4] 116_16-07 : Finished Test Piece Example for Five-axis Machining Centers : Hideyuki TAKESHIMA and Yukitoshi IHARA :	[D4] 066_18-04 : Impedance Control of Parallel Link Mechanism by Multi Drive Linear Motors : Motoya NAGASE, Takashi HARADA :	[E4] 157_22-12 : Nanomanufacturing Tool Fabrications by Focused-Ion-Beam Chemical Vapor Deposition : Reo KOMETANI, Shin'ichi WARISAWA and Sunao ISHIHARA :
14:40	[A5] Break	[B5] 158_01-09 : A collision prevention system with enhanced functions for detecting work-piece setting defects of machine tools : Toshiaki KIMURA, Tatsuya IZAKI, Hisaaki, TERADA, Yukihisa SHITAYA, Kunihiro SAYAMA, and Yuichi KANDA :	[C5] 181_16-10 : Development of Groove-Matrix Machining Method for Evaluating 5-Axis Machining Centers : Toru YAMAMOTO, Takao HASEBE and Masaomi TSUTSUMI :	[D5] 083_18-05 : Torque Error Compensation in Pneumatic Rotary Actuator System Using an Electromagnetic Force : Mamoru HAYASHI, Hiroshi SAWANO, Hayato YOSHIOKA and Hidenori SHINNO :	[E5] 149_22-08 : Improvement of Vibration Characteristics of Silicon Resonators by Means of Surface Treatment : Hiroki Shimizu, Jean-Jacques Delaunay, Reo Kometani, Shinichi Warisawa, Sunao Ishihara :
Break					
15:20	Chair [A6] 001_05-01 : FEM Analysis and Simulation for Press-Forming of Spiral Plates of Screw Conveyor : Sande GAO and Keijiro NAKASA :	Chair [B6] 051_01-03 : Investigation of Finished Surface Machined by Ball Nose End-milling under Constant Contact Angle with a Five-axis Controlled Machining Center : Ryo SHUCHI, Toshiki HIROGAKI, Eiichi AOYAMA, and Keiji OGAWA :	Chair [C6] 087_16-04 : Polar-coordinate Desktop Machine Tool, an Intelligent Digital 3D Duplicator : Jiang ZHU, Ryota TANABE, Tomohisa TANAKA, and Yoshio SAITO :	Chair [D6] 084_18-06 : A Newly Developed X-Y Planar Nano-Motion Table System with Large Travel Ranges : Yugo KURISAKI, Hiroshi SAWANO, Hayato YOSHIOKA, Hidenori SHINNO :	Chair [E6] 166_22-15 : Periodic cylindrical nanostructure localization by means of affinity control in diblock copolymer microphase separation : Shin'ichi Warisawa, Hiroyuki Suzuki, Reo Kometani, Sunao Ishihara :
15:40	[A7] 030_22-03 : Study on an Interactive System for Conceptual and Basic Design of Machine Tool Structure : Zhangyong YU, Keiichi NAKAMOTO, Tohru ISHIDA, and Yoshimi TAKEUCHI :	[B7] 130_01-06 : Modeling of passive forces of machine tool covers : Petr KOLAR, Jan HUDEC, Matej SULITKA, Martin LACHMAN and Radomir MENDRICKY :	[C7] 098_16-06 : Identification Methods of Geometric Deviations Suitable to Multi Tasking Turning Centers : Chengri CUI, Masaomi TSUTSUMI, and Kenji HIGASHIYAMA :	[D7] 106_18-07 : Sensorless Cutting Force Control using Parallel Disturbance Observer : Daisuke KURIHARA, Yasuhiro KAKINUMA, and Seichiro KATSURA :	[E7] 168_22-16 : Development of Prototype of High Speed Clock Module : Kazumasa KAWASAKI, Takashi MIYAGUCHI, Hiroshi SAITOH, Tomoyuki KATO, Koroh KOBAYASHI, Hisayuki NAKAGAWA and Kazunori KOBAYASHI :
16:00	[A8] 055_05-06 : Shape Reproduction and Cutter Location Using the Normal Vector Generated by Photometric Stereo Method : Seishi NAKAMURA, Eiichi AOYAMA, Toshiki HIROGAKI, Masayuki FUKURA, Hiromichi NOBE :	[B8] 133_01-07 : A Knowledge-based Product Model Data for Integrating CAM-CNC Operation : Wikan SAKARINTO, Hiroshi NARAZAKI, Keiichi SHIRASE :	[C8] 138_16-08 : Artistic Machining by Means of Multi-tasking Machine : Yasuhiro Kawaguchi, Keiichi Nakamoto, Toru Ishida, and Yoshimi Takeuchi :	[D8] 129_18-08 : A Compensation Technique of Machine Tool Thermal Errors Build on Thermal Transfer Functions : Otakar HOREJŠ, Martin MAREŠ, Peter KOHÚT, Pavel BARTA, Jan HORNÝCH :	[E8] 062_22-05 : Experimental Study of Friction Ratio On Lubricating Characteristics of Micro Bubble Added Working Fluid Due to Additive Gases in Rubbing Test : Yoshio MIZUGAKI, Naofumi MITANI and Koichi KIKKAWA :
16:20	[A9] 182_05-14 : Study on Collision Free Machining using Simulation and CNC Openness : Tetsuya ASANO, Tomoya HIDA and Akinobu GOTO :	[B9] 144_01-08 : Machining Strategy to Adapt Cutting Conditions under Digital Copy Milling Concept : Takashi SHIMADA, Keiichi NAKAMOTO and Keiichi SIRASE :	[C9] 152_16-09 : Tool posture planning method for 5-axis control machining with an idea of spatial temporal representation based on machine tool coordinate system : Jun'ichi KANEKO and Kenichiro HORIO :	[D9] 163_18-09 : Cooperative Control System of a Maglev Local Actuator and a Conventional EDM Machine : Yoshitaka UEYAMA, Xiaoyou ZHANG, Tadahiko SHINSHI, Akira SHIMOKHBE, Takayuki NAKAGAWA, Tatsusi SATO and Hidetaka MIYAKE :	[E9] 176_22-17 : Development of a Working Lubricant Utilizing Micelle Formation and Polymer Compounds : Syutaro YAMAMOTO and Toshiyuki ENOMOTO :
16:40	[A10] 041_05-05 : Development of CAM System for Multi-tasking Machine Tools : Koji KUBOTA, Takashi KOTANI, Keiichi NAKAMOTO, Tohru ISHIDA, and Yoshimi TAKEUCHI :	[B10] Break	[C10] 153_22-10 : Development of a Free Curved Plate Thickness Evaluation System Using a Robot -Verification of Principal of Measurement- : Naoki ASAKAWA, Sachiko IKEJIMA, Fumiya MURATA and Masatoshi HIRAO :	[D10] Break	[E10] 165_22-14 : Modeling of friction on the inner surface of bended tubes : Qifeng CUI, Nobuyuki MORONUKI, and Arita KANEKO :
18:00 - 20:00 Welcome reception					

Dec. 3 nd

10:00	Room A	Room B	Room C	Room D	Room E
	<p>Chair [A11] 034_07-07 : Development of CAD/CAM System for Cross Section's Changing Hole Electrical Discharge Machining -Formulation of Post Processor- : Eiki ISHIGURO, Tohru ISHIDA, Masahiko KITA, Keiichi NAKAMOTO, Yoshimi TAKEUCHI :</p>	<p>Chair [B11] 008_02-02 : Performance of Palm Oil as MQL Fluid during High Speed Drilling of Ti-6Al-4V : Erween Abd RAHIM, Hiroyuki SASAHARA :</p>	<p>Chair [C11] 123_10-05 : Effect of fullerene poly-hydroxide on Cu-CMP process : HirotaKa KISHIDA, Terutake HAYASHI, Yasuhiro TAKAYA, Ken KOKUBO, Keisuke SUZUKI :</p>	<p>Chair [D11] 039_14-02 : SDSM monitoring of the end milling process using an air-driven spindle : Masaki IZAWA :</p>	<p>Chair [E11] 072_04-01 : Two-dimensional Ultrasonically Assisted Grinding of Monocrystal Silicon : Z. LIANG, a, Y. WU, b, X. WANG, c, W. Zhao, d, T. SATO2 and W. LIN :</p>
	<p>[A12] 025_05-03 : Efficient Design Method Based on Evaluation Using CAE System : Yuta Sawai and Hideki Aoyama :</p>	<p>[B12] 052_02-07 : Selection of Optimal Machining Parameters in Hard Turning with Graphite as Solid Lubricant : Dilbag Singh, P. Venkateswara Rao :</p>	<p>[C12] 005_10-02 : Polishing Phenomena of Copper Plate using Photocatalyst and Fluorescent Substance excited by Ultraviolet Ray -Study of Ultraviolet-Ray Aided Machining- : Takeshi TANAKA :</p>	<p>[D12] 075_14-03 : Transient Temperature Variation beneath Rake Face in End Milling : Masahiko SATO, Naoki TAMURA and Hisataka TANAKA :</p>	<p>[E12] 079_04-02 : Microscopic Wear Behavior of Grain Cutting Edges in cBN Grinding : Masakazu FUJIMOTO, Yoshio ICHIDA and Yuichiro INOUE :</p>
	<p>[A13] 026_05-04 : Reverse Engineering System for Functional Parts with Complex Shape : Megumi SATO and Hideki AOYAMA :</p>	<p>[B13] 107_02-14 : Enhancement of Lubrication Effect at Tool and Work Interface by Using Rotary Cutting Tool with Textured Surface : Takumi ANAZAWA, Fumihiro ITOIGAWA and Takashi NAKAMURA :</p>	<p>[C13] 110_10-03 : Finishing of InnerWall of Cooling Channel in Mold by High Speed Flowing : Yasuhiro KANO, Takashi UEDA , Tatsuki FURUMOTO, Akira HOSOKAWA, Ryutarō TANAKA and Toru AMINO :</p>	<p>[D13] 109_14-04 : Development of Cutting Force Measurement Technique for Milling Process with Small Diameter End Mill : Kanae NARUKAWA and Tadao KAWAI :</p>	<p>[E13] 081_04-03 : Development of High-Performance Vitrified Grinding Wheel using Ultrafine-Crystalline cBN Abrasive Grains : Yoshio ICHIDA, Masakazu FUJIMOTO, Yuichiro INOUE and Keisuke MATSUI :</p>
	<p>[A14] 121_05-11 : Machining Error Compensation Based on On-the-machine Measurement of machined surface : Go ABE, Masatoshi ARITOSHI, Tomoki TOMITA, Keiichi SHIRASE :</p>	<p>[B14] 148_02-16 : Mechanical and Tribological Characteristics of Nitride Hard Thin Films for Zero Emission End milling : Akiyoshi KOBAYASHI, Takashi SUZUKI and Daichi MORI :</p>	<p>[C14] 113_10-04 : Study of Alternating Magnetic Field Assisted Internal Finishing for Nonferrous Complex-shaped Components : Hitomi YAMAGUCHI and Takeo SHINMURA :</p>	<p>[D14] 007_14-01 : Application of the Hilbert-Huang Transformation to the tool-wear monitoring in machining process : Tomas KALVODA, Yean-Ren HWANG and Martin VRABEC :</p>	<p>[E14] 179_04-04 : Machining ability of electroplated diamond tools with CNT-coated diamond grains : Tsunehisa SUZUKI, Hiroshi SAITO, Toshiaki MITSUI, Mutsuto KATO :</p>
	<p>[A15] 162_05-13 : NC Milling Simulation using Adaptively-sampled Distance Fields : Akira MIYATA, Toshihiro AZUMA :</p>	<p>[B15] 009_02-03 : Improvement in Surface Quality with Solid Lubrication in Turning AISI 4340 steel : Sanjay MISHRA, Sanjay AGARWAL :</p>	<p>[C15] Break</p>	<p>[D15] 115_14-05 : Tool Wear Monitoring in End-Milling of Titanium Alloy : Eiji KONDO, Masaya YAMASAKI and Norio KAWAGOISHI :</p>	<p>[E15] 073_09-01 : A Method to Increase Material Removal Rate in Tangential-feed Centerless Grinding Performed on Surface Grinder : Weixing XU a, Yongbo WU b, Takashi SATO c and Weimin LIN :</p>
	<p>[A16] Break</p>	<p>[B16] Break</p>	<p>[C16] Break</p>	<p>[D16] 161_14-06 : Detection of chatter by the measurement of acceleration of the spindle head in the axial direction : Katsuhiko SEKIYA, Yuka NAKAHARA, Ryo TEZUKA, Keiji YAMADA and Yasuo YAMANE :</p>	<p>[E16] 177_09-02 : Comparative micro-grinding performance of BK7, Lithosil and NSF14 glass using on-machine fabricated PCD tool : Asma Perveen, M. Rahman and Y.S. Wong :</p>
12:00	Lunch				
	<p>Chair [A17] 101_12-14 : Influence of Nanoimprinting Pressure on Mechanical Damage in Compound Semiconductor Substrate Used for Laser Diode : Masaki YANAGISAWA, Yukihiro TSUJI, Hiroyuki YOSHINAGA, Kenji HIRATSUKA, and Jun TANIGUCHI :</p>	<p>Chair [B17] 027_02-04 : Study on Turning of Micro Shaft -Control of Thrust Force Considering Vickers Hardness of Workpiece- : Kohichi MIURA, Takazo YAMADA and Hwa-Soo LEE :</p>	<p>Chair [C17] 053_20-01 : Two Novel Diamond Machining Technologies for Machining New Types of Optical Structures : R. Gläbe, L. Schönemann, B. Lünemann, A. Schotten, E. Brinksmeier :</p>	<p>Chair [D17] 028_03-01 : Modelling of Burr Formation of Coated Cutting Tools for Clean Manufacturing : Jürgen Leopold, Takashi Matsumura :</p>	<p>Chair [E17] 014_11-01 : Evaluation of Molten Zone in Glass Welding Using Ultra-short Pulsed Laser : Zazuli Bin Mohid, Yasuhiro Okamoto, Keishi Yamamoto, Yoshiyuki Uno, Isamu Miyamoto, Kristian Cvecek, Michael Schmidt and Peter Bechtold :</p>
	<p>[A18] 120_12-20 : 3D metal nano pattern transfer on PET using novel release method : Noriyuki UNNO, Jun TANIGUCHI and Shoichiro ISHIKAWA :</p>	<p>[B18] 056_02-08 : An Approach to Cutting Condition Optimization in End Milling —Its Concept and Analytical Shear Angle Prediction Model— : Hiroyuki YAMADA, Hiromichi ONIKURA :</p>	<p>[C18] 064_20-02 : Machining properties of hard-brittle materials under high external hydrostatic pressure : Yoshiyuki NAMATAME and Masahiko YOSHINO :</p>	<p>[D18] 035_03-02 : Simulation of Drilling Process for Control of Burr Formation : Takashi MATSUMURA and Jürgen LEOPOLD :</p>	<p>[E18] 016_11-03 : Investigation on Welding Phenomenon for Aluminum Alloy by Superposition of Pulsed YAG Laser and Diode Laser : Shin HARAGUCHI, Yasuhiro OKAMOTO, Yoshiyuki UNO, Tomokazu SAKAGAWA and Shin-ichi NAKASHIBA :</p>
	<p>[A19] 021_12-01 : Nano Plastic Forming-Coating-Roller Imprinting (NPF-CRI) Process for Rapid Fabrication Technique of Nano and Micro Structures : Willy KURNIA, Masahiko YOSHINO :</p>	<p>[B19] 089_02-13 : Temperature History and Metallographic Structure of 0.45%C Steel Processed by Frictional Stir Burnishing : Satoshi KIUCHI and Hiroyuki SASAHARA :</p>	<p>[C19] 067_20-03 : Multi-tasking machining process under high hydrostatic pressure : Naoki YOSHIKAWA, Kazuaki UCHIDA and Masahiko YOSHINO :</p>	<p>[D19] 143_03-03 : Study on Cutting Mechanism and Cutting Performance for Inclined Surface by Oval End Mill using 3D—CAD : H. Iwabe, T. Kumaki and I. Hori :</p>	<p>[E19] 017_11-04 : Effect of Nozzle Shape on Dross Generation in Fine Cutting of Thin Metal Plate by Pulsed Nd:YAG Laser : Hiroshi SUZUKI, Yasuhiro OKAMOTO and Yoshiyuki UNO :</p>
	<p>[A20] 024_12-02 : New Approach to Nanofabrication with Non-photolithographic Pattern Transfer by Nano Plastic Forming (NPF) and Etching Processes : Hassan RASHIDI, Masahiko YOSHINO :</p>	<p>[B20] 131_22-06 : A framework for machining of soft objects : Koji TERAMOTO, Yuichi KUROISHI and Masataka YAMASHITA :</p>	<p>[C20] 100_20-05 : Development of lathe type NC cutting device for machining under high hydrostatic pressure : Yohei SHIMIZU, Masahiko YOSHINO and Naoki YOSHIKAWA :</p>	<p>[D20] 175_03-04 : Effect of Cross Transfer Function on Chatter Stability in Plunge Cutting : Norikazu SUZUKI, Kohei NISHIMURA, Eiji SHAMOTO and Kiyoshi YOSHINO :</p>	<p>[E20] 099_11-06 : Excimer Laser 3D Machining Based on Irradiation Pulse Number Control : Ryo SUZUKI, Jiang ZHU, Tomohisa TANAKA and Yoshio SAITO :</p>
	<p>[A21] 032_12-03 : Crystal Plasticity Finite Element Simulation of Nano/Micro Plastic Forming for Metallic Material : Akinori YAMANAKA, Tsuyoshi KAWANISHI and Masahiko YOSHINO :</p>	<p>[B21] Break</p>	<p>[C21] 134_20-06 : Wear Mechanism of Diamond Tools in Ductile Machining of Reaction-bonded Silicon Carbide : Zhiyu ZHANG, Jiwang YAN, and Tsunemoto KURIYAGAWA :</p>	<p>[D21] Break</p>	<p>[E21] 015_11-02 : Observation of Plasma Behavior in Micro-machining of Ceramics by Harmonics of Nd:YAG laser : Norihito HAYASHI, Yasuhiro OKAMOTO, Yoshiyuki UNO and Tomokazu SAKAGAWA :</p>
15:00	Break				

15:20	Room A	Room B	Room C	Room D	Room E
	Chair [A22] 063_12-07 : Development of ordered nano structure surface by using nano plastic forming : Hiroki Osawa, Masahiko Yoshino :	Chair [B22] 060_02-10 : Deformation Analysis of Polycarbonate Sheet with Flexible Underlay During Wedge Cutting Process : Masatoshi FUJIKURA, Seksan CHAIJIT, Shigeru NAGASAWA and Yasushi FUKUZAWA :	Chair [C22] 135_20-07 : Study on Nonisothermal Glass Molding Press for Aspherical Lens : Tianfeng Zhou, Jiwang Yan, Nobuhiro yoshihara, Tsunemoto Kuriyagawa :	Chair [D22] 167_21-04 : Integrated Design Environment for Life Cycle Design : Yasutake Kawada, Kazuhiro Yamamoto, Shinichi Fukushige, and Yasushi Umeda :	Chair [E22] 086_11-05 : Study on Cleaving Mechanism of Silicon Wafer by Laser Beam Irradiation : Reiko TAKEDA, Takashi UEDA, Tatsuki FURUMOTO, Akira HOSOKAWA, Ryutaro TANAKA :
15:40	[A23] 068_12-08 : Microstructure Control by Nano/micro Plastic Forming for Functional Metallic Material : Tsuyoshi KAWANISHI, Akinori YAMANAKA, Masahiko YOSHINO, Ryo HIBINO and Hidehiko KIMURA :	[B23] 059_02-09 : Effect of Sulfide Inclusion Morphology on Surface Roughness in Free Cutting Steel : Naoki MATSUI and Junsuke FUJIWARA :	[C23] 155_20-08 : Study on Micro Cutting of LiNbO3 Wafer for Fabrication of SAW Device : Koichi OKUDA, Tatsunori TSUNEYOSHI, Wei LI, Hideki SHIBAHARA, Hiroo SHIZUKA and Masayuki NUNOBIKI :	[D23] 178_21-05 : Product Modularization and Evaluation Based on Lifecycle Scenario : Shinichi FUKUSHIGE, Keita TONOIKE, Yoichiro INOUE and Yasushi UMEDA :	[E23] 112_11-07 : Laser Sintering Characteristics of Metallic Powder with Yb Fiber Laser - Optimization of Processing Conditions about Laser Irradiation : Naoto KOBAYASHI, Takashi UEDA, Tatsuki FURUMOTO, Akira HOSOKAWA and Ryutaro TANAKA :
16:00	[A24] 046_12-05 : Precision in Mechanical Removal Processing of Nano-sheet by AFM Probe - Study of Processing Method for Fabrication of High Precision Groove- : Kazuya DEMURA, Naoki WATANABE, Yuta OHKI, Tohru IHARA :	[B24] 088_02-12 : FEM simulation on Sensitivity of Crack Propagation on Aluminum Sheet during Wedge Shearing Process : Seksan CHAIJIT, Shigeru NAGASAWA :	[C24] 164_20-09 : Cutting Performance of a Single-crystalline Diamond Ball Endmill in Fabricating Micro Lens Arrays and Grooves : Jiwang YAN, Zhiyu ZHANG, Tsunemoto KURIYAGAWA, and Hidenobu GONDA :	[D24] 126_21-03 : Investigation of Sustainable and Reliable Manufacturing System Based on the Environmental Impact : Sachiko OGAWA, Toshiki HIROGAKI, Eiichi AOYAMA :	[E24] 142_22-07 : Design Method for Structure of Injection Mold Fabricated by Metal Laser Sintering : Hiroshi Koresawa, Michio Kojima, Hiroyuki Narahara, Hirofumi Fukumaru and Hiroshi Suzuki :
16:20	[A25] 047_12-06 : Analysis on Mechanical Removal Processing Mechanism of Nano-sheet by AFM Probe - Effect of Probe Material on Mechanical Removal Processing : Kazuya DEMURA, Naoki WATANABE, Yuta OHKI, Tohru IHARA :	[B25] 049_02-06 : Investigation of the effects of an electrolytic coolant with a nano carbon additive in diamond micro cutting on ferrous materials : Akihiro INADA, Hitoshi OHMORI, Sangkee MIN and David DORNFIELD :	[C25] 169_20-10 : Optimization of Grinding Conditions Utilizing Nano-topography Distribution Analysis : Nobuhiro YOSHIHARA, Jiwang YAN and Tsunemoto KURIYAGAWA :	[D25] 031_21-02 : Sustainable Manufacturing System Focusing on the Natural Growth of Bamboo : Mitsuaki TANIGUCHI, Toshiki HIROGAKI, Eiichi AOYAMA, Keiji OGAWA, and Sachiko OGAWA :	[E25] 122_11-08 : Run-out Correction Technology Using Laser On-the Machine Tool : Keiji OGAWA, Heisaburo NAKAGAWA and Satoshi WATANABE :
16:40	[A26] 080_12-09 : Mechanism of Material Removal in Nanomachining using AFM Diamond Tip : Yoshio ICHIDA, Takashi YAMAGUCHI and Makoto SASANUMA :	[B26] Break	[C26] Break	[D26] 010_21-01 : Checklist-based Assessment Method for Environmentally Conscious Design : Yusuke KISHITA, Bi Hong LOW, Shinichi FUKUSHIGE, Yasushi UMEDA, Atsushi SUZUKI and Takao KAWABE :	[E26] Break
18:20	18:20 -21:00 Banquet				

Dec. 4 th

10:00	10:00 - 11:00 Plenary speech Room A				
11:00	Room A	Room B	Room C	Room D	Room E
	[A27] Break	Chair [B27] 125_19-01 : Improving Tool Life in End milling of Cobalt Chromium Molybdenum (Co-Cr-Mo) alloy : Yusuke KOIKE, Atsushi MATSUBARA, Yosuke NAKATSUKASA and Iwao YAMAJI :	Chair [C27] 058_15-01 : Effect of Plateau Creation on the Tribological Properties of the AISI316L Steel Treated with Fine Particle Peening : Yutaka Kameyama, Zhou Yu, Teruko Kato, and Hitoshi Ohmori :	Chair [D27] 050_17-01 : Evaluation of Machining Errors of Scroll Profiles : Jianhong, Yang, Y. Arai and W. Gao :	Chair [E27] 018_07-01 : Addition of Surface Functions to Orthopedic Surgical Tools and Jigs by Large-area Electron Beam Irradiation : Hiroaki WATANABE, Akira OKADA, Yoshiyuki UNO, Kunihiko FUJIWARA and Kenji DOI :
11:20	Chair [A28] 097_12-13 : Research on Enhancement of Photocatalytic Activities of Titanium Dioxide Film Surface by Generating Microcutting Grooves : Jun SHIMIZU, Libo ZHOU, Kaoru TAKAMORI, Hirotaka OJIMA and Takeyuki YAMAMOTO :	[B28] 069_02-11 : Air Jet Assisted Machining of Inconel 718 : Toshiyuki OBIKAWA, Yasuhiro KAMATA and Sachio YAMADA :	[C28] 070_15-02 : Evaluation of corrosion wear characteristics of Co-Cr alloys with a New Electrical Grinding Technique (EG-X) : Masayoshi MIZUTANI, Noriyuki HISAMORI, Takafumi MIZUNO and Hitoshi OHMORI :	[D28] 057_17-02 : Development of a Measuring System for Micro Hole Accuracy Using an Optical Fiber Probe - Evaluation of the Measurement Repeatability- : Hiroshi MURAKAMI, Akio KATSUKI, Hiromichi ONIKURA, Takao SAJIMA, Norio KAWAGOSHII, Eiji KONDO and Tomohiro HONDA :	[E28] 023_07-05 : Improvement of Surface Characteristics of Metal Mold by EB polishing : Haruhisa BAMBAA, Akira OKADA, Yoshiyuki UNO, Yuji KANEKO and Itaru MATSUMOTO :
11:40	[A29] 117_12-17 : Ion-bombardment-enhanced etching of quartz : Takashi OKUMOTO, Jun TANIGUCHI, Sadao MOMOTA, Yasuo KOGO, Noritaka KAWASEGI and Noboru MORITA :	[B29] 033_02-05 : Thermal Behavior and Chip formation on Rotary Cutting of Difficult-to-cut Materials utilizing Multi Tasking Lathe and MQL : Hiromasa YAMAMOTO, Kentaro SATAKE, Toru NARITA, Hiroyuki SASAHARA, Masaomi TSUTSUMI, Toshiyuki MURAKI :	[C29] 111_15-03 : Surface finishing and modification for cobalt-chromium-molybdenum alloy by electrolytic in-process dressing (ELID) grinding : Hiroshi KOTANI, Jun KOMOTORI, Masayoshi MIZUTANI, Tetsuya NARUSE, Kazutoshi KATAHIRA and Hitoshi OHMORI :	[D29] 065_17-03 : Parallelism Measurement of the slide axis with respect to the spindle axis of a diamond turning machine : JungChul LEE, YoungJin NOH, Yoshikazu ARAI, Wei GAO, JooHo HWANG, ChunHong PARK :	[E29] 029_07-06 : Simple model of Micro-Electrical Discharge Machining : Sambo SAR, Gunawan Setia PRIHANDANA, M. MAHARDIKA, M. HAMD, Kimiyuki MITSUI :
12:00	[A30] 118_12-18 : Strain field in Si mold on UV-nanoimprint lithography : Jun TANIGUCHI, Kazutomo OSARI, Yasushi MORIHIRA :	[B30] 124_02-15 : Endmill cutting for C/C-SiC composite : Tetsuya TASHIRO, Junsuke FUJIWARA and Keita OCHIAI :	[C30] 170_15-04 : Grinding Characteristics of Optical Glass for Surface Roughness Reduction : Hiroshi KASUGA, Hitoshi OHMORI, Yutaka WATANABE and Taketoshi MISHIMA :	[D30] 093_17-04 : Study on the position detection method using the single fiber optical trapping probe : Sang In EOM, Yasuhiro TAKAYA, and Terutake HAYASHI :	[E30] 077_05-07 : A Novel Method for Fabrication of Die and Mold in Orbiting Electrical Discharge Machining-Proposition of Electrode Design- : Tutik SRIANI, a, Yuuki NAKAMURA, b and Hideki AOYAMA :
12:20	Lunch				
13:20	Chair [A31] 119_12-19 : Focused ion beam machining of silicon carbide : Takashi OKUMOTO, Kousuke SAWAI, Jun TANIGUCHI, Takaki OOSUMI, Shin-ichi SATAKE, Shun YAMASHINA, Yasuo KOGO :	Chair [B31] 146_13-04 : A Study on 3-Dimensional Skeletal Model for Rotational Motions of Forearms : Yuki Hirayama, Yutaka FUKUI, Tsunao KAWANO, Nobuhiro SUGIMURA :	[C31] Break	Chair [D31] 127_17-05 : Evaluation of Unstable Behavior in Micro-probe Trapped by Optical Radiation Pressure : Mitsutoshi KOBAYASHI, Terutake HAYASHI and Yasuhiro TAKAYA :	Chair [E31] 020_07-03 : Study on Separation Force of Molded Resin from EDMed Surface : Hirohiko HIOKI, Ryoji KITADA, Akira OKADA and Yoshiyuki UNO :

	Room A	Room B	Room C	Room D	Room E
13:40	<p>[A32] 091_12-11 : Study on Path Control Scheme by Potential Method for Vision Guided Micro Manipulation System :</p> <p>Hiroataka OJIMA, Yoshitaka YANAI, Libo ZHOU, and Jun SHIMIZU :</p>	<p>[B32] 147_13-05 : Analysis of Kinematic Motion Deviations of Machining Centers Based on Geometric Tolerances :</p> <p>Hitomi WATABIKI, Nobuhiro SUGIMURA, Yoshitaka TANIMIZU and Koji IWAMURA :</p>	<p>Chair [C32] 006_08-01 : A method for estimating the inherent deviations of multi-tasking turning center :</p> <p>Muditha Dassanayake K.M., Chengri CUI, Kenji HIGASHIYAMA and Masaomi TSUTSUMI :</p>	<p>[D32] 137_17-06 : Effect of Anisotropy on Shape Measurement Accuracy of Silicon Wafer Using Three-Point-Support Inverting Method :</p> <p>Yukihiro ITO, Wataru NATSU and Masanori KUNIEDA :</p>	<p>[E32] 082_07-09 : Workpiece vibration aided nano-graphite powder suspended dielectric fluid in micro-electrical discharge machining (μ-EDM) processes : Gunawan Setia PRIHANDANA, M.MAHARDIKA, SAR Sambo, M.HAMDI, Y.S.WONG, Kimiyuki MITSUI :</p>
14:00	<p>[A33] 096_12-12 : Research on Chemical Reaction Assisted Ultra-short Pulsed Laser Cleavage-cutting of Silicon Wafer :</p> <p>Takashi MIZOGUCHI, Libo ZHOU , Jun SHIMIZU, Hiroataka OJIMA and Takeyuki YAMAMOTO :</p>	<p>[B33] 045_13-01 : Extension of Two-Layered Dynamic Supply Chain Model Considering Transportation Constraint :</p> <p>Yoshitaka TANIMIZU, Kana HARADA, Chisato OZAWA, Koji IWAMURA and Nobuhiro SUGIMURA :</p>	<p>[C33] 038_08-02 : Heat Flux Estimation at Heat Sources of Machine Tool by Solving Inverse Problems :</p> <p>Kazutake UEHARA and Fumio OBATA :</p>	<p>[D33] 145_17-07 : Profile Measurement of Micro-structured Surfaces by using SPMs :</p> <p>Shigeaki Goto, Takemi Asai, Yoshikazu Arai, and Wei Gao :</p>	<p>[E33] 141_07-10 : Investigations on Process Behavior in Micro EDM using novel Tool Electrode Materials :</p> <p>Eckart UHLMANN, Markus ROEHNER, David Carlos DOMINGOS :</p>
14:20	<p>[A34] 085_12-10 : Research on 3D data Acquisition and Configuration of Live Images :</p> <p>Yuya SASAMOTO, Hiroataka OJIMA, Libo ZHOU, Jun SHIMIZU :</p>	<p>[B34] 071_13-02 : Hardness of Approximating Transshipment Problems with Permutable Transit Vectors :</p> <p>Kougaku YAMASHITA, Yoshiyuki KARUNO and Mingzhe LU :</p>	<p>[C34] 103_08-04 : Examination of method of quantification of dynamic characteristic parameters of tooling system based on impulse response :</p> <p>Haruhisa SAKAMOTO, Taiga MATSUDA and Shinji SHIMIZU :</p>	<p>[D34] 156_17-08 : Dynamic Property Evaluation of Nano/Micro Mechanical Resonators Utilizing Frequency-modulated Secondary Electron Signals :</p> <p>Hiroki ASHIBA, Shin'ichi WARISAWA and Sunao ISHIHARA :</p>	<p>[E34] 172_07-11 : Effects of ZrO₂ Insulating Ceramics Structure on the Electric Discharge Machined Surface Condition :</p> <p>Ryuji Ito, Yasushi Fukuzawa :</p>
14:40	Break				
15:00	<p>Chair [A35] 043_12-04 : Study on Micro End Milling Using Precise Cutting Force Measurement :</p> <p>Mitsuyoshi NOMURA, Atsushi KATAOKA, Takahiro KAWASHIMA, Takayuki SHIBATA, Yoshihiko MURAKAMI, Masami MASUDA and Osamu HORIUCHI :</p>	<p>Chair [B35] 092_13-03 : A Study on Optimization of Interdivisional Scheduling for Dynamically Changing Manufacturing Environment :</p> <p>Yoshihiro YAO, Toshiya KAIHARA and Nobutada FUJII :</p>	<p>Chair [C35] 128_08-05 : Properties of the Spindle and Machine Frame Coupled System :</p> <p>Matej SULITKA, Petr KOLAR and Miroslav JANOTA :</p>	<p>Chair [D35] : Break</p>	<p>Chair [E35] 022_07-04 : Energy Distribution into Micro EDM Electrodes :</p> <p>Mohd ZAHIRUDDIN and Masanori KUNIEDA :</p>
15:20	<p>[A36] 104_12-15 : Single Point Micro Incremental Forming of Miniature Shell Structures :</p> <p>Tsutomu SEKINE and Toshiyuki OBIKAWA :</p>	<p>[B36] 174_13-06 : Proposal of System Architecture for Project Based Production :</p> <p>Chikara Ariyoshi, Hidefumi Wakamatsu, Eiji Morinaga, and Eiji Arai :</p>	<p>[C36] 132_08-06 : Calibration for Geometric Error Measurement System of Rotary Axis of a 5-axis Miniaturized Machine Tool :</p> <p>Sung-Ryung PARK, Trung-Kien HOANG and Seung-Han YANG :</p>	<p>[D36] : Break</p>	<p>[E36] 019_07-02 : Evaluation of Spark Location Distribution in Wire EDM by High-speed Observation :</p> <p>Masanori NAKAZAWA, Akira OKADA, Toshiyuki YAMAUCHI, Yoshiyuki UNO :</p>
15:40	<p>[A37] 108_12-16 : Pre-Deformation-assisted Cryogenic Micromachining for Fabrication of Three-dimensional Unique Micro Channels :</p> <p>Koji MISHIMA, Masaomi YAMAMOTO, Yasuhiro KAKINUMA, Tojiro AOYAMA :</p>	<p>[B37] 180_22-18 : IMPLEMENTATION OF JIT METHODOLOGY THROUGH AXIOMATIC DESIGN APPROACH :</p> <p>S. B. Jadeja, Dr. S. S. Khandare, D. D. Patel :</p>	<p>[C37] 159_08-07 : Development for a simple measurement system for pick-and-place mechanisms :</p> <p>Wen-Yuh Jywe, Chien-Hung Liu, Yang-Teng Yang , Tung-Hui Hsu, Yun-Feng Teng, Hsin-Hung Jwo, Hsueh-Liang, Huang, Ming-Shi Wang :</p>	<p>[D37] : Break</p>	<p>[E37] 074_07-08 : Observation of Scattered Debris Generated by Pulse Discharge in Bubble in Electrical Discharge Machining :</p> <p>Teruya Doke, Shinya Hayakawa, Fumihiro Itoigawa, Takashi Nakamura :</p>