Schedule

November 6, 2013

17:00 20:00	Registration desk open (Registration only)

November 7, 2013

Hotel Taikanso fuji hall

8:30	Registration desk open
9:00	Opening, Prof. Tsunemoto KURIYAGAWA
9:10	Plenary lecture Prof. Liangchi ZHANG
10:10	Plenary lecture Prof. Hideki ISHIDA
11:10	Plenary lecture Dr. Mike CONROY
12:00	

Technical Session

Hotel Taikanso

	Room A	Room B	Room C	Room D
13:00 13:20 13:40 14:00	Advanced machine tool	Nano / micro measurement and intelligent instruments (1)	Evaluation of machine tool performance	Monitoring of machining process
14:20	Coffee break			
14:30 14:50 15:10 15:30	Laser processing (1)	Nano / micro measurement and intelligent instruments (2)	New developments in abrasive finishing technology	Other manufacturing-related technologies (1)
15:50	Coffee break			
16:00 16:20 16:40 17:00	Laser processing (2)	Nano / micro measurement and intelligent instruments (3)	Electrical machining (1)	Other manufacturing-related technologies (2)
17:20	Coffee break			
17:30 17:50 18:10 18:30	Laser processing (3)	M4 processes (micro / meso mechanical manufacturing) and micro-manufacturing for science	Electrical machining (2)	Other manufacturing-related technologies (3)
19:00	*Banquet (Hotel Taikanso Taikan hall)*			

November 8

8:30	Registration desk open			
	Room A	Room B	Room C	Room D
9:00 9:20 9:40 10:00	Grinding technology (1)	Advanced machining technology (1)	Precision positioning and control technology (1)	Multi-axis control and Multi-tasking machining (1)
10:20	Coffee break			
10:30 10:50 11:10	Grinding technology (2)	Advanced machining technology (2)	Precision positioning and control technology (2)	Multi-axis control and Multi-tasking machining (2)
11:30 11:50	Lunch			
13:00 13:20 13:40 14:00	Digital design and digital manufacturing (CAD / CAM) (1)	Advanced machining technology (3)	Advanced Die & Mold Manufacturing Technologies, Rapid Technologies and Additive Manufacturing	Manufacturing systems and scheduling
14:20	Coffee break			
14:30 14:50 15:10 15:30	Digital design and digital manufacturing (CAD / CAM) (2)	Advanced machining technology (4)	Analytical advancement of machining process	Ultra-precision machining
15:50 16:10				

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17:00 20:00	Registration desk open (Registration only)

November 7, 2013

Hotel Taikanso fuji hall

8:30	Registration desk open
9:00	Opening, Prof. Tsunemoto KURIYAGAWA
9:10	Plenary lecture Prof. Liangchi ZHANG "Dealing with Rough Surface in Manufacturing"
10:10	Plenary lecture Prof. Hideki ISHIDA "Nature Technology - Creating a Fresh Approach to Technology and Lifestyle"
11:10	Plenary lecture Dr. Mike CONROY "Using interferometry to measure steep slopes"
12:00	

Technical Session

	Room A		Room B		Room C		Room D	
	Advanced machine tool		**Nano / micro measurement and intelligent instruments (1)**		**Evaluation of machine tool performance**		**Monitoring of machining process**	
	Hirofumi SUZUKI (Chubu University)		**Ryota KUDO (Osaka University)**		**Yukitoshi IHARA (Osaka Institute of Technology)**		**Kazuhito OHASHI (Okayama University)**	
13:00	A001	Influence of Motion Error of Feed Drive Systems onto Machined Surface Generated by Ball End-mill Yuki SATO, Ryuta SATO and Keiichi SHIRASE	B001	On–machine form measurement system of high precision ceramics parts by using a laser displacement sensor Daiki MATSUURA, So ITO, Takayuki MEGURO, Yuki SHIMIZU, Wei GAO, Shigeru ADACHI, Kyohei OMIYA	C001	Open-loop' Tracking Interferometer for Three-dimensional Volumetric Error Measurement for Machine Tools Soichi IBARAKI and Goh SATO	D001	Measurement of temperature at bottom surface of hole in drilling of CFRP and titanium stack Masahiko SATO, Tomoyuki AOKI, Hisataka TANAKA and Satoshi TAKEDA
13:20	A002	Development of A High-Precision Hybrid CNC Machine Tool for In-Situ Fabricating A Biomedical-Slide Mold Shun-Tong CHEN, Chih-Hsien CHANG	B002	Construction of a surface profile measurement system by using a nanopipette ball probe with shear-force detection Issei KODAMA, So ITO, Wei GAO	C002	Estimation of Machine Tool Volumetric Error based on the Multi-lateration Principle using Machine Tool Rotary Axes –Two-dimensional case– Keisuke TSUBOI, Soichi IBARAKI	D002	Drill Wear Prediction with Features Extracted From the Static & Dynamic Components of Forces by Wavelet Packet Transform Using Back Propagation Neural Network Jie XU, Keiji YAMADA, Katsuhiko SEIKIYA, Ryutaro TANAKA, Yasuo YAMANE
13:40	A003	Investigation of End Mill Geometry when Helical Milling CFRP/ Al Stacks Erween Abd RAHIM, Zazuli MOHID, Ahmad Fahmi YUSUF, Mohd Romadan HAMZAH, Hiroyuki SASAHARA, Rei KOYASU	B003	Design of a stylus displacement sensor with a low measuring force Sho SEKINE, Shinichi OSAWA, Yuki SHIMIZU, So ITO Wei GAO, Kouji KUBOTA, Akira KATO, Kuniaki ARAKAWA, Mutsumi YASUTAKE	C003	Error calibration of 5-axis machine tools by on-machine measurement system using a laser displacement sensor Yuu NAGAI, Soichi IBARAKI and Shizuo NISHIKAWA	D003	Development of Sensor-less Wear Monitoring Method by Means of Servo Information Based on Disturbance Observer Theory Ryo KOIKE, Yasuhiro KAKINUMA, Tojiro AOYAMA, and Kohei OHNISHI
14:00	A004	An Improved Approach to Real-Time Compensation of Machining Error Caused by Deflection of Two-Flute End Mill at Cutting Point Eiji KONDO, Hiroko KARASHIMA, Mitsuhiro NAKAO and Kenji SHIMANA	B004	Investigation of a femtosecond laser for measurement of angular displacement Yukitoshi KUDO, Siew-Leng TAN, Yuki SHIMIZU, So ITO, and Wei GAO	C004	Characteristics of thermal displacement of cylindrical grinding machines with rotation of wheel spindle -Influence of thermal displacement of wheel spindle and wheel spindle head- Shinji SHIMIZU, Yosuke UENO and Haruhisa SAKAMOTO	D004	Sensorless tool condition monitoring in buffing processes R. KUMAKURA, Y. KAKINUMA, T. ARAI, E. UCHISHIBA, M. MURAKAMI, T. SAGARA, T. AOYAMA
14:20	Coffee break							
	Laser processing (1)		**Nano / micro measurement and intelligent instruments (2)**		**New developments in abrasive finishing technology**		**Other manufacturing-related technologies (1)**	
	Akira HOSOKAWA (Kanazawa University)		**Yuki SHIMIZU (Tohoku University)**		**Libo ZHOU (Ibaraki University)**		**Masayoshi MIZUTANI (Tohoku University)**	
14:30			B005	A Long-Range Straightness Measurement with Motion Error Compensation Takuya KOMIYAMA, Hiroshi SAWANO, Hayato YOSHIOKA and Hidenori SHINNO	C005	Relationship between Polishing Force Distribution and Material Removal in MCF Polishing Process Huiru GUO, Yongbo WU, Masakazu FUJIMOTO and Mitsuyoshi NOMURA	D005	Effect of Mist Flow Pattern in Determining the Nozzle Distance in MQL using Particle Image Velocimetry Hemarani. DORAIRAJU, Zazuli MOHID and Erween Abd RAHIM
14:50	A006	Deformation analysis of Ti sheet in laser forming along the edge of the sheet Masayuki NUNOBIKI, Jinno HAYASHI, Koichi OKUDA and Hiroo SHIZUKA	B006	Coherent Imaging Algorithm of Super-Resolution Optical Inspection with Structured Light Shift Ryota KUDO, Hiroki YOKOZEKI, Satoru TAKAHASHI and Kiyoshi TAKAMASU	C006	Study on ultraprecision polishing of sapphire -Effects of crystal orientation on polishing characteristics- Mutsumi OKADA, Hirofumi SUZUKI, Chikara INUKAI Toshikazu SUZUKI, Yasuo HIGASHI and Shinobu AOYAGI	D006	Investigation of Silicone Rubber's Cutting Characteristic during Keen WC Blades Indentation Pusit MITSOMWANG, Shigeru NAGASAWA, Yuichi IGARASHI, Hiroki KUROIWA, Yoshio FUKUSHIMA and Hironori HORIBATA
15:10	A007	One-Dimensional Numerical Analysis of Thermal Stress Propagation in Sheet Glass Generated by Pulsed Laser Irradiation Akira CHIBA, Souta MATSUSAKA, Hirofumi HIDAI, Noboru MORITA	B007	A study on the improvement of the Herbert pendulum hardness tester Tetsushi KABURAGI, Masaaki MATSUBARA, Ryousuke SUZUKI and Toshimitsu KOYAMA	C007	Uniform Polishing of Large Aspheric Lenses by Magnetic Field-Assisted Polishing D. KATO, H. SUZUKI and M. OKADA	D007	Tool Path Optimization for Drilling Process in CNC Machine Using Genetic Algorithm Haslina ABDULLAH, Rizauddin RAMLI and Dzuraidah Abd WAHAB
15:30	A008	Fundamental Study on Micro-welding of Copper by Green Pulsed YAG Laser Sunao TAKAI, Shin-ichi NAKASHIBA, Yasuhiro OKAMOTO, Akira OKADA, Tomokazu SAKAGAWA	B008	Enhancement of sensing resolution for minute refractive index change of micro flow by light interferometer using stochastic resonance P.D. TRAN, M. MICHIHATA, T. HAYASHI and Y. TAKAYA	C008	Study on Fixed Abrasive Polishing with Alumina Abrasive Grain for Single Crystal Si -Effects of Actual Contact Area and Grain Size- Ryunosuke SATO	D008	Automation of Soil Mixing for Soil Test by using Industrial Robot Towa TSUBOKAWA, Naoki ASAKAWA, Masato OKADA, Hiromi NOJIRI and Sayaka MATSUMURA
15:50	Coffee break							

	Laser processing (2)		Nano / micro measurement and intelligent instruments (3)		Electrical machining (1)		Other manufacturing-related technologies (2)	
	Masayuki NUNOBIKI (University of Hyogo)		**Terutake HAYASHI (Osaka University)**		**Akira OKADA (Okayama University)**		**Yasuhiro KAKINUMA (Keio University)**	
16:00	A009	Investigation of Micro-drilling Characteristics for SiC by Harmonics of YAG Laser Shin URUSHIBATA, Yasuhiro OKAMOTO, Shin-ichi NAKASHIBA, Tomokazu SAKAGAWA, Akira OKADA	B009	Evaluation of an electronic clinometer for precision measurement of inclination Tatsuya ISHIKAWA, Siew-Leng TAN, So ITO, Yuuki SHIMIZU, Wei GAO, Ryoki HATA, Satoshi NAKAGAWA and Kenji YOSHIOKA	C009	Electrostatic Induction Feeding EDM by Controlling the Duration of High Frequency Discharge Norliana MOHD ABBAS, Masanori KUNIEDA, Tomohiro KOYANO	D009	Ultrasonic Vibration Drilling of Titanium alloy and Proposing Visualization Device Kazuya YAMADA and Hiromi ISOBE
16:20	A010	Fundamental Characteristics of Spatter in Micro-drilling of Metal Sheet by Pulsed Nd:YAG Laser Kento SHIRASAYA, Yasuhiro OKAMOTO and Akira OKADA	B010	Measurement of contact potential difference and material distribution by using an SEFM Keiichiro HOSOBUCHI, Zhigang JIA, So ITO, Yuki SHIMIZU, Wei GAO	C010	Micro ECM of Curved Patterns Using Shaped Electrolyte Jet Takuma KAWANAKA, Masanori KUNIEDA	D010	Design of restrictors of water hydrostatic thrust bearings considering influence of initial table displacement Naohiro MAKINO, Masataka KOMORI, Kenji SUZUKI and Yohichi NAKAO
16:40	A011	Pulsed Laser Milling Integrated Die and Mold Machining: Experimental Analysis of Laser Irradiation Method on Process Performance Keiji OGAWA, Heisaburo NAKAGAWA and Tatsurou NAKABOU	B011	Experiment of Polarization Forces in Scanning Electrostatic Force Microscopy for Measuring Surface Profile of Dielectric Gaofa HE, Zhigang JIA, So ITO, Yuki SHIMIZU, Wei GAO	C011	Effect of Discharge Duration and Pulse Frequency on Surface Characteristics of Textured Surface using Whirling Electrical Discharge Texturing Vitchuda LERTPHOKANONT, Masahiro OI, Takayuki SATO, Minoru OTA, Kai EGASHIRA, Keishi YAMAGUCHI, Masayoshi YAMADA and Yasuo TOMITA	D011	Patterned self-assembly of fine particles on three-dimensional structures Manabu NISHIO and Nobuyuki MORONUKI
17:00	A012	Internal Processing of Glass by Ultrashort Pulse Laser and Analysis of Its Processing Phenomena Nobuaki KOMATSUBARA and Etsuji OHMURA	B012	Design of fabrication process of thermal contact sensor for surface defect inspections Yuta OHBA, Yuki SHIMIZU, Wenjian LU and Wei GAO	C012	Back-Surface Deburring of a Small Hole Using Whirling Electrical Discharge Machining with Wire Tool Electrode Masahiro OI, Vitchuda LERTPHOKANONT, Atsushi NAKAYAMA, Minoru OTA, Kai EGASHIRA and Keishi YAMAGUCHI	D012	Fabrication of Precision Micrograting on Resin Substrate Utilizing Ultrasonic-Assisted Molding Sergey BOLOTOV, Ryuichi KOBAYASHI, Keita SHIMADA, Masayoshi MIZUTANI, Tsunemoto KURIYAGAWA
17:20	Coffee break							
	Laser processing (3)		**M4 processes (micro / meso mechanical manufacturing) and micro-manufacturing for science**		**Electrical machining (2)**		**Other manufacturing-related technologies (3)**	
	Etsuji OHMURA (Osaka University)		**Minoru OTA (Kyoto Institute of Technology)**		**Masanori KUNIEDA (The University of Tokyo)**		**Nobuhito YOSHIHARA (Iwate University)**	
17:30	A013	Internal finishing of cooling channel within molding die obtained by additive manufacturing Daiki KUSUNOKI, Tatsuaki FURUMOTO, Takashi UEDA, Akira HOSOKAWA	B013	Surface Texturing and Wettability Evaluation of Zirconia Ceramics Shaolin XU, Keita SHIMADA, Masayoshi MIZUTANI and Tsunemoto KURIYAGAWA	C013	Precise Prediction of Shape Change at Convex Tip by Large-area EB Irradiation Koki KOYAMA, Akira OKADA, Yasuhiro OKAMOTO and Koji TABUCHI	D013	Development of a structure with variable thermal conductivity using an electro-adhesive gel Kunito KONISHI, Tojiro AOYAMA, Hidenobu ANZAI, Hiroharu SAKURAI
17:50	A014	Formation of re-solidified layer on the surface of dental hard tissue by Er:YAG laser irradiation Tetsuya HAYASHI, Tatsuaki FURUMOTO, Takashi UEDA and Akira HOSOKAWA	B014	Influence of Process Parameters on Ultrasonic Machining using Smoothed Particle Hydrodynamics Jingsi WANG, Keita SHIMADA, Masayoshi MIZUTANI and Tsunemoto KURIYAGAWA	C014	Study on Movement of Thin Tungsten Wire Electrode during Fine Wire EDM Naoki WATANABE, Akira OKADA and Yasuhiro OKAMOTO	D014	Basic Study on the Application of a New Electro-adhesive Rubber for Paper Handling Devices Keita MATSUZAWA, Yuta SHIMIZU, Yasuhiro KAKINUMA, Tojiro AOYAMA, Masaki YOSHINO, Jun AOTO
18:10	A015	Control of the incubation effects in pulsed laser micro machining on ferroelectric lithium niobate substrates Teppei ONUKI, Ippei MURAYAMA, Takeyuki YAMAMOTO, Hirotaka OJIMA, Jun SHIMIZU and Libo ZHOU	B015	Development of a micro/nano-scale constant load cutting mechanism measuring the cutting force by an optical lever German HERRERA-GRANADOS, Kiwamu ASHIDA, Ichiro OGURA, Yuichi OKAZAKI, Noboru MORITA, Hirofumi HIDAI, Souta MATSUSAKA, Akira CHIBA	C015	Fundamental Study on Hole Fabrication inside a Hole by Means of Electrical Discharge Machining Tohru ISHIDA, Yuichi OKAHARA, Masahiko KITA, Akira MIZOBUCHI, Keiichi NAKAMOTO, and Yoshimi TAKEUCHI	D015	Grinding characteristics of high-speed reciprocation profile grinding Nobuhito YOSHIHARA, Kyohei HOROYA, Nishikawa NAOHIRO, Masahiro MIZUNO, Toshirou IYAMA
18:30								
19:00	*Banquet (Hotel Taikanso Taikan hall)*							

November 8

8:30	Registration desk open							
	Room A		Room B		Room C		Room D	
	Grinding technology (1)		**Advanced machining technology (1)**		**Precision positioning and control technology (1)**		**Multi-axis control and Multi-tasking machining (1)**	
	Yongbo WU (Akita Prefectural University)		**Tojiro AOYAMA (Keio University)**		**Hayato YOSHIOKA (Tokyo Institute of Technology)**		**Hideki AOYAMA (Keio University)**	
9:00	A016	Statistical Analysis of Plane Honing for Silicon Carbide Wafers Keita SHIMADA, Chung-I KUO Kensuke TAKAHASHI, Masayoshi MIZUTANI and Tsunemoto KURIYAGAWA	B016	Laser-assisted Precision Machining of Yttria-stabilized Tetragonal Zirconia Polycrystals with Optimal Wavelength Yusuke ITO, Toru KIZAKI, Naohiko SUGITA and Mamoru MITSUISHI	C016	An ultra-sensitive angle sensor based on laser autocollimation for stage motion measurement Dai MURATA, Siew-Leng TAN, Yuki SHIMIZU, So ITO, and Wei GAO		
9:20	A017	Thermal Dressing of Metal Bonded Diamond Wheel by Nd:YAG Laser —Optimization of air-jet irradiation angle— Sho TAMAKI, Akira HOSOKAWA, Takashi UEDA, Tatsuaki FURUMOTO	B017	A Method of Tool Engagement Temperature Estimation on Laser Assisted Micro Milling Z. MOHID, A.M.WARAP, R.IBRAHIM, M.I.S.ISMAIL and E.A.RAHIM	C017	Design and Testing of a Four-Probe Sensor Head For a Mosaic Grating Surface Encoder Takeshi ITO, Yuki SHIMIZU, WooJae KIM, Koji HOSONO, So ITO and Wei GAO	D017	Design of Motion Accuracy Measurement Device with Three Displacement Sensors for Machine Tool and Comparison of its Setting Method Masashi YAMAJI and Yukitoshi IHARA
9:40	A018	Three-dimensional cutting edge distribution of abrasives on diamond grinding wheel working surface Libo ZHOU, Yutaro EBINA, Jun SHIMIZU, Teppei ONUKI, Hirotaka OJIMA, and Takeyuki YAMAMOTO	B018	Evaluation of Machining Characteristics on CFRP Straight-Line Cutting Using Flexible Circular Saw Yohei YAMADA, Nobuyuki OSUMI, Kazuya HATAKEYAMA and Hiroyuki SASAHARA	C018	Study on Method for Evaluating Damping Capacity of Linear Rolling Bearing Yasunori SAKAI, Masaomi TSUTSUMI	D018	Development of CAPP System for Multi-tasking Machining of Complex Shapes Keiichi NAKAMOTO, Daichi HAMADA and Yoshimi TAKEUCHI
10:00	A019	Small Hole Open Processing of Zirconia Ceramics Developed for Mold Tomoya OWAKI and Yukitoshi IHARA	B019	Effect of Finish Cutting on the Mechanical Properties of the Enhanced Layer Made by Frictional Stir Burnishing Yuusuke YAMADA, Yoshimasa TAKADA and Hiroyuki SASAHARA	C019	Investigation and reduction of crosstalk errors in a six-degree-of-freedom surface encoder for a planar motion stage Xinghui LI, So ITO, Hiroshi MUTO, Yuki SHIMIZU, Wei GAO and Songyi DIAN	D019	Sliding Mode Contouring Controller with a Nonlinear Sliding Surface and a Disturbance Observer for Five-Axis Machining Tasks A. El KHALICK M., Naoki UCHIYAMA and Shigenori SANO
10:20	Coffee break							
	Grinding technology (2)		**Advanced machining technology (2)**		**Precision positioning and control technology (2)**		**Multi-axis control and Multi-tasking machining (2)**	
	Keita SHIMADA (Tohoku University)		**Hiroyuki SASAHARA (Tokyo University of Agriculture and Technology)**		**Atsushi MATSUBARA (Kyoto University)**		**Keiichi NAKAMOTO (Tokyo University of Agriculture and Technology)**	
10:30	A020	In-Process Monitoring of Machining State in Superfinishing Takashi ONISHI, Kazuhito OHASHI, Kohei HIGASHI, Shingo YAMASHITA, Takashiro IGUCHI and Shinya TSUKAMOTO	B020	Influences of cutting speed and tool rake angle upon the cutting characteristics of natural rubber Naoki TAKAHASHI and Jun SHINOZUKA	C020	Precision Positioning of a Long-stroke Scanning Electrostatic Force Probe for Profile Measurement of Large Amplitude Micro-structured Surface Zhigang JIA, Gaofa HE, Shigeaki GOTO, Keiichiro HOSOBUCHI, So ITO, Yuki SHIMIZU and Wei GAO	D020	Basic Study on Process Planning for Turning-Milling Center Based on Machining Feature Recognition Khusna DWIJIAYANTI, Hideki AOYAMA
10:50	A021	Experimental investigation of material removal mechanism in ultrasonic assisted grinding of SiC ceramics using a single diamond tool Jianguo CAO, Yongbo WU, Huiru GUO, Masakazu FUJIMOTO and Nomura MITSUYOSHI	B021	Frank Wear Resistance and Tribological Properties of a Novel Cutting Tool with Micro Stripe Texture Tatsuya SUGIHARA and Toshiyuki ENOMOTO	C021	Development of Cr-N strain-gauge-type displacement sensor for positioning of micro-XY stage Yuxin PENG, Toyohiro AZUMA, Eiji NIWA, Junji KANEKO,Yuki SHIMIZU, So ITO and Wei GAO	D021	Development of CAM System for 3D Surface Machining with CNC Lathe Keigo TAKASUGI, Yoshitaka MORIMOTO, Yoshiyuki KANEKO and Katsuhiro NAKAGAKI
11:10	A022	Surface Topography of Small Diameter Diamond Wheel in Ultrasonic Assisted Grinding Masakazu FUJIMOTO, Yongbo WU, Mitsuyoshi NOMURA, Hidenari KANAI and Masahiko JIN	B022	High Speed Machining of Stainless Steel Using Low-Pressure Jet Coolant Ryuta NAKATSUKASA, Mamoru HAYASHI, Tatsumi OHNO, Toshiyuki OBIKAWA, Takayuki KUMAKIRI and Hidebumi TAKAHASHI	C022	Magnetic Attraction Force-preloaded Aerostatic Guideway for High Speed Nano Positioning System Takumi TSUMURA, Hayato YOSHIOKA, Hidenori SHINNO and Hiroshi SAWANO	D022	Friction compensation in contouring control for biaxial feed drive systems and experimental verification Bui Dinh BA, Naoki UCHIYAMA, Shigenori SANO
11:30	A023	Investigation of Grinding Temperature of Carbon Fiber Reinforced Plastics Ryohei FUJIHARA, Kazuhito OHASHI, Mitsuo YOSHIKAWA, Shinichiro KUBOTA, Takashi ONISHI and Shinya TSUKAMOTO	B023	In-process Observation of Workpiece Deformation in Elastomer Endmilling Koji TERAMOTO, Shohei KUDO and Yuichiro FURUYA				
11:50	Lunch							

	Digital design and digital manufacturing (CAD / CAM) (1)		Advanced machining technology (3)		Advanced Die & Mold Manufacturing Technologies, Rapid Technologies and Additive Manufacturing		Manufacturing systems and scheduling	
	Keiichi SHIRASE (Kobe University)		Koji TERAMOTO (Muroran Institute of Technology)		Tsunemoto KURIYAGAWA (Tohoku University)		Toru EGUCHI (Hiroshima University)	
13:00	A024	Development of Operation Interface for Turning Machine Using Haptic Device Raiyo OKA, Koichi MORISHIGE	B024	A Study on Tool Geometry Optimization in Drilling of Lead-free Brass Using Micro-Drill Hideharu KATO, Shingo NAKATA and Noriaki IKENAGA, Hiroaki SUGITA	C024	Fabrication of Lens Array Mold by Electrical Discharge Machining Hideo TAKINO, Takahiro HOSAKA, Keisuke SAKURAI, and Keisuke OGURA	D024	Analysis of Kinematic Motion Deviations of Machining Centers Based on Geometric Tolerances Atsushi TAKAHASHI, Arata YOSHIDA, Wiroj THASANA, Nobuhiro SUGIMURA, Yoshitaka TANIMIZU and Koji IWAMURA
13:20	A025	Experimental Verification of Ball End-milling Condition Decision Support System Applying Hierarchical and Non-hierarchical Clustering Methods Hiroyuki KODAMA, Toshiki HIROGAKI, Eiichi AOYAMA, Keiji OGAWA	B025	Fundamental study for development of self-sharpening tool in CFRP machining Satoru MAEGAWA, Shinya HAYAKAWA, Fumihiro ITOIGAWA and Takashi NAKAMURA	C025	A Possibility of 3D Models Created by Rapid Prototyping Technology For Informed Consent Hirohisa NARITA and Toshimasa TAKAHASHI	D025	Comprehensive representation of feasible combinations of alternatives for dynamic production planning using Zero-suppressed Binary Decision Diagram Keita TAKAHASHI, Masahiko ONOSATO, Fumiki TANAKA
13:40	A026	Burr Prediction Method in End Milling Sothea KRUY, Hideki AOYAMA, Kentaro OHTA, Noriaki SANO	B026	Prevention of Depth-of-Cut Notch Wear by Optimization of Chamfer Processing for Tool Edge in Inconel718 Cutting Hiroki KIYOTA, Fumihiro ITOIGAWA, Yu HASEGAWA, Kiichi MEGURO and Takashi NAKAMURA	C026	Novel selective laser melting solution for metal additive manufacturing using vacuum and a quasi continuous wave laser Shizuka NAKANO, Masashi HAGIWARA, Toru SHIMIZU, Yoshinori HORIBA, Naoko SATO, Kunio MATSUZAKI and Masahiro SASSA	D026	A Work Instruction System Based on an Analysis of Learning Processes for Assembly Cells Yoshitaka TANIMIZU, Satoru ISHII, Takashi YOKOTANI, Koji IWAMURA, Nobuhiro SUGIMURA
14:00	A027	Development of Automatic Machining Process Deciding System Based on 3D-Model Jiang ZHU, Saori MUTO, Tomohisa Tanaka and Yoshio SAITO	B027	Clarification of relationship between fiber orientation and tool wear in milling of CFRP Daichi MURAKAMI, Takeshi YASHIRO and Hiroyuki SASAHARA	C027	Fabrication of replica nickel molds containing carbon nanotube by thermal nanoimprint Tsunehisa SUZUKI, Mutsuto KATO, Takeshi MATSUDA, Seiya KOBAYASHI	D027	Job Shop Scheduling with Capacity Adjustment -An efficient search method using the mixture of GA and priority rule and its performance evaluation using Lagrangian relaxation method- Toru EGUCHI, Mitsunobu YODA, Yusuke YAMAMOTO and Takeshi MURAYAMA
14:20	Coffee break							
	Digital design and digital manufacturing (CAD / CAM) (2)		Advanced machining technology (4)		Analytical advancement of machining process		Ultra-precision machining	
	Koichi MORISHIGE (The University of Electro-Communications)		Naohiko SUGITA (The University of Tokyo)		Jun SHINOZUKA (Yokohama National University)		Hideo TAKINO (Chiba Institute of Technology)	
14:30	A028	Motion Path Evaluation based on Energy Consumption of Feed Drive System in NC Machine Tool Akio HYASHI, Yuta INOUE, Ryuta SATO and Keiichi SHIRASE	B028	Influence of carbon fiber direction and coolant on end milling of CFRP Tasuku HIGAINO, Tojiro AOYAMA, and Hitoshi OGAWA	C028	Evaluation of tool damage in rotary machining process using numerical simulation technique Masaki OKUDA, Hiroyuki SASAHARA, Wataru TAKAHASHI, Satoshi KUBOTA, Soo-Young KIM	D028	Effect of WC Particle Size on Surface Roughness in Ultra-Precision Diamond Cutting of Tungsten Carbide Hideaki IKEJIMA, Koichi OKUDA, Hiroo SHIZUKA and Masayuki NUNOBIKI
14:50	A029	A Concept of Total Removal Volume Feature in Selecting Machining Sequence for Generative Automated Process Planning Mohammad Miradj ISNAINI, Ryuta SATO and Keiichi SHIRASE	B029	Influence of Cutting Edge Shape of Ball-nose End Mill on Machining of CFRP Shigehiko SAKAMOTO and Fukuhito NAGATA	C029	Cutting Force Prediction in Drilling of Carbon Fiber Reinforced Plastics Shoich TAMURA and Takashi MATSUMURA	D029	Study on process analysis method for NC multitasking machine tools Yoshitaka MORIMOTO, Hiroyuki YAMAMOTO, Tadashi YAMAMOTO, Tomonori ARAI and Masahiko KAKUMOTO
15:10	A030	A Simulation of Kinematic Deviations of Boring Processes on CNC Machining Centers Wiroj THASANA, Atsushi TAKAHASHI, Arata YOSHIDA, Nobuhiro SUGIMURA, Yoshitaka TANIMIZU and Koji IWAMURA	B030	Influence of Stress field under Condition of Ultrasonically assisted Orthogonal Cutting Chihiro YAMAGUCHI and Hiromi ISOBE	C030	Study on Evaluation of Cutting Performance of Ball End Mill with Straight-line Path Method for Inclined Surface Using 3D-CAD (Influence of Feed Direction on Cutting Mechanism) Tsuyoshi FUJITA and Hiroyasu IWABE	D030	A micro optical probe for evaluation of tool edge geometry SungHo JANG, Yuki SHIMIZU, So ITO and Wei GAO
15:30	A031	Development of Orthros, an Evaluation System for Free Curved Plate Thickness with a Robot - Selection of Representative Points for Appropriate Interpolation- Yurie OKUGAWA, Naoki ASAKAWA and Masato OKADA	B031	Theoretical Models, Instrumental Implementation and Preliminary Result of Ultrasonic Assisted Turning Rasidi IBRAHIM, Suraidah SUFRING, Yusdi YUSOF, Wang CHAO	C031	Detection of the Burn Mark on the Plastic Surface Using Image Analysis －Fundamental study for reduction the environmental impact by unpainted plastic products－ Takashi SUDA, Hiroki KUROIWA, Yoshio FUKUSHIMA, Takashi SUZUKI and Fumio TERAUCHI	D031	Self-Evaluation of Tool Edge Contour of a Single Point Diamond Tool on a Force-Controlled Fast Tool Servo Yuan-Liu CHEN, Yuki SHIMIZU, So ITO, Wei GAO and Bing-Feng JU
15:50			B032	Development of fixed diamond abrasive pellet for final finishing of mono-crystallined sapphire wafers Yoshiaki TASHIRO, Libo ZHOU, Jun SHIMIZU, Noriaki SHINODA, Yoshinori MITSUI			D032	Effects of the cutting edge shape on the brittle cracking in the glass cutting -Effects of the deviation of the roughness curve vertex- Takenori ONO
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