

Schedule

November 8, 2011
Sonic city hall, 2nd floor

9:00	Registration desk open (2nd floor, Sonic city hall)
10:00	Opening, Prof. Masaomi Tsutsumi, Chair of LEM21
10:10	Plenary lecture, "Recent Manufacturing Development in China" Prof. Jun NI, University of Michigan, Shanghai Jiao Tong University
11:00	Plenary lecture, "The Story and Lessons of Rapidly Upgrading Commercial Vehicles" Prof. Thomas R. Kurfess, Clemson University
11:50	

Technical Session

Sonic city building, 4th and 6th floor

	Room A	Room B	Room C	Room D
	Analytical advancement of machining process	Advanced machine tool	Laser processing (1)	Digital design and digital manufacturing (CAD / CAM)
	Yoshio MIZUGAKI mizugaki@mech.kyutech.ac.jp Takashi MATSUMURA tmatsumu@cck.dendai.ac.jp	Yoshitaka MORIMOTO mosandb1@neptune.kanazawa-it.ac.jp Soichi IBARAKI	Hirofumi HIDAI hidai@faculty.chiba-u.jp Eiich AOYAMA eaoyama@mail.doshisha.ac.jp	Koichi MORISHIGE m-shige@mce.uec.ac.jp Fumiki TANAKA ftanaka@ssi.ist.hokudai.ac.jp
13:20	3358 Study on Evaluation of Cutting Performance with Ball End Mill for Inclined Surface using 3D-CAD (Proposal of Cutting Method based on Analytical and Experimental Results) Tsuyoshi FUJITA and Hiroyasu IWABE	3264 Identification Method of Dynamic Characteristics of Joints in Jointed Structure Shinji SHIMIZU, Yoshiaki KABAYA, Haruhisa SAKAMOTO and Kenichi YAMASHITA	3245 Effect of Continuous Diode Laser on Crack Generation in Pulsed Nd:YAG Laser Welding of Aluminum Alloy Kazuya MIURA, Yasuhiro OKAMOTO, Shin-ichi NAKASHIBA, Tomokazu SAKAGAWA, Akira OKADA and Y. HIRAIWA	3348 Statistical Tolerance Design System for Mass Production Based on Assembly Performance by Using Statistical Tolerance Index Akimasa OTSUKA and Fusaomi NAGATA
13:40	3291 An Approach of Cutting Coefficients Determination for Cutting Force Model of Ball End Mills Hirohisa NARITA	3404 Estimation Method of Contact Stiffness of Joint based on Surface Profile Measurement Kyoko NAKAMURA, Shinji SHIMIZU, Haruhisa SAKAMOTO and Kenichi YAMASHITA	3255 Effects of Laser Wavelength and Intensity Distribution on Removal Characteristics of TCO Film Naoya TAKAHASHI, Yasuhiro OKAMOTO, Shin-ichi NAKASHIBA and Tomokazu SAKAGAWA	3320 Feature-based Off-line Teaching System for Industrial Welding Robots to Assist Teaching Program Generation Michitaka MAEGAWA, Takamune SHINKAWA, Masanori YAMASAKI and Keiichi SHIRASE
14:00	3393 Proposition of Evaluation Index based on Geometric Analysis for Precise Machining of Ball End Milling Hisanobu TERAJ, Teruyuki ASAO, Koichi KIKKAWA and Yoshio MIZUGAKI	3311 Study on Accuracy Evaluation of Machining Center Based on Measurement Results of Machined Workpiece -Evaluation of Accuracy of 5-axis Controlled Machining Center- Yoshitaka MORIMOTO, Keisuke NAKATO and Motoshi GONTANI	3246 High-quality Dicing of Semiconductor Package by Superposition of Pulsed Fiber Laser and SHG:YAG Laser Hibiki YAMAMOTO, Yasuhiro OKAMOTO, Muhamad Fahmi bin Mohd Noor, Ryoji KITADA and Akira OKADA	3263 Manufacturing Feature Extraction System of 3D-Model for Process Planning Jiang ZHU, Yusuke NARABU, Tomohisa TANAKA and Yoshio SAITO
14:20	3401 Cutting Force Prediction in Drilling of Titanium Alloy Shouichi TAMURA, Takashi MATSUMURA and Pedro J. Arrazola	3288 Development of Conceptual Design Assistance System for Machine Tool Structure with Consideration of Feed Drive Mechanism Zhangyong YU, Keiichi NAKAMOTO and Yoshimi TAKEUCHI	3373 Study on Temperature Measurement of Human Enamel by Er:YAG Laser Irradiation -The Influence of Surface Temperature on the Dental Pulp- Kaoru NAKATANI, Tatsuaki FURUMOTO, Takashi UEDA, Akira HOSOKAWA and Ryutaro	3268 Computer Aided Operation Planning for an Actual Machine Tool Based on Updatable Machining Database and Database Oriented Planning Algorithm Shinji IGARI, Fumiki TANAKA and Masahiko ONOSATO
14:40	3402 Finite Element Modelling of Chip Formation Process Applied to Drilling of Ti64 Alloy Pedro J. ARRAZOLA, Takashi MATSUMURA, Aitor KORTABARRIA, Ainara GARAY, Dani SOLER	3297 NC Data Generation Method for High Speed and High Accuracy Machining Taking into Consideration Control Characteristics of Machine Tool Kosuke SAITO, Hideki AOYAMA and Noriaki SANO	3361 Thermal Stress Cleaving of Brittle Materials by Laser Beam Takanori ISHIKAWA, Takashi UEDA, Tatsuaki FURUMOTO, Akira HOSOKAWA and Ryutaro TANAKA	3319 Development of System to Predict Burr in Endmilling Kentaro OHTA, Hideki AOYAMA and Noriaki SANO
15:00	3418 Drilling of Ti-6Al-4V with MQL and its FE Simulation Erween Abd RAHIM and Hiroyuki SASAHARA	3338 Active Tool Motion Control Utilizing Voxel Property to Removal Volume in Digital Copy Milling Tomokazu KOBAYASHI, Atsushi HAKOTANI, Ryuta SATO and Keiichi SHIRASE	3374 Dominant Factors of Suitable Processing Conditions in Laser Scribing of Glass Keisuke YAHATA, Etsuji OHMURA, Seiji SHIMIZU and Masanao MURAKAMI	3354 Development of Platform-Independent Open CAM Kernel Keigo TAKASUGI, Takuya KUMASAKA and Naoki ASAKAWA
15:20	Coffee break			
	Advanced machining technology (1)	Multi-axis control and Multi-tasking machining	Laser processing (2)	Manufacturing systems and scheduling

		Toshiyuki OBIKAWA obikawa@iis.u-tokyo.ac.jp Erween Abd Rahim erween@uthm.edu.my	Keiichi SHIRASE shirase@mech.kobe-u.ac.jp Haruhisa SAKAMOTO h-sakamo@sophia.ac.jp	Yasuhiro OKAMOTO okamoto@mech.okayama-u.ac.jp Etsuji OHMURA ohmura@mit.eng.osaka-u.ac.jp	Nobuhiro SUGIMURA sugimura@me.osakafu-u.ac.jp Rei HINO hino@mech.nagoya-u.ac.jp			
15:40	3331	Influence of the Heat Treatment Condition upon the High-speed Cutting Mechanism of Aluminum Alloy A2017 Masato SANDO, Tappei HIGASHI and Jun SHINOZUKA	3259	Identification of Geometric Deviations in Five-axis Machining Centers by Measurement Method Based on Orthogonal Coordinate Frame Shintaro TONE, Masaomi TSUTSUMI, Chengri CUI and Kazuya TAJIMA	3364	High-aspect-ratio Microdrilling with Laser Ablation Hirofumi HIDAI, Sho ITOH and Hitoshi TOKURA	3238	Mixed Integer Programming to a Plastic Limit Design Problem of Truss Structures Atsushi YAMADA and Yoshiyuki KARUNO
16:00	3325	Surface Enhancement by Frictional Stir Burnishing using Flat Tip Tool Yoshimasa Takada and Hiroyuki SASAHARA	3282	Efficient Tool Path Generation for Five-Axis Controlled Machining by Use of Square End Mill Noriyuki NATSUME, Keiichi NAKAMOTO and Yoshimi TAKEUCHI	3305	Study on Cutting of Aircraft Materials with Laser-Aided Atsushi KANO, Takashi UEDA, Tatsuaki FURUMOTO, Akira HOSOKAWA and Ryutarō TANAKA	3293	Scheduling Vehicles of Minimizing the Number of Dispatched Staff Members Yoshiyuki KARUNO and Kaname YUDA
16:20	3334	Taguchi's Optimization in Ultrasonic Drilling of Alumina Ceramic S. Mehdi HOSEINI and Javad AKBARI	3366	Toolpath Generator for Multi-axis Medical Machine Tool to Optimize Cutting Tool Posture and Position before Skin Incision Wataru NAWATA, Naohiko SUGITA, Yoshikazu NAKAJIMA, Takeharu KATO, Kazuo FUJIWARA, Nobuhiro ABE, Toshifumi OZAKI, Masahiko SUZUKI and Mamoru MITSUISHI	3347	Development of Forming Technique for Nano-polycrystalline Diamond Cutting Tool Using Pulsed Fiber Laser Yoshifumi AMAMOTO, Masafumi YOSHIDA, Takuya SEMBA and Hitoshi SUMIYA	3357	A Process Decision Making Strategy Based on Sustainability Evaluation Keiji OGAWA, Toshiki HIROGAKI, Shreyes N. MELKOTE and Sachiko OGAWA
16:40	3269	Curved Line Cutting Using Flexible Circular Saw Yohei YAMADA, Nobuyuki OSUMI, Akio TAKASUGI and Hiroyuki SASAHARA	3379	Tool Path Generation for Five-Axis Controlled Machining with Consideration of Structure Interference Tomoyuki KANDA and Koichi MORISHIGE	3398	Sheet Material Forming without Dies Toshihiko NAKAMURA, Hideki AOYAMA, Naohisa MATSUSHITA and Akihiko USHIMARU	3363	Extension of a Reactive Scheduling Method Using Co-evolutionary Genetic Algorithms under Precedence Constraints Yoshitaka TANIMIZU, Sosuke UCHINO, Koji IWAMURA and Nobuhiro SUGIMURA
17:00	3254	Effect of Scoring Condition on Creasing Characteristics of Double-wall Corrugated Board Yuuki KOMIYAMA, Shigeru NAGASAWA and Yasushi FUKUZAWA	3400	Tool Posture Planning Method for Continuous Multi Axis Control Machining with Consideration of Shortening Shank Length of Endmill Jun'ichi KANEKO and Kenichiro HORIO	3337	Investigation of Heat-treatment Method by Low-powered Laser for Small Parts and Evaluation by Life Cycle Assessment Rie OKAMOTO, Toshiki HIROGAKI, Eiichi AOYAMA, Keiji OGAWA and Sachiko OGAWA	3317	Improvement Accuracy of Cutting Condition Decision Formula Using Catalog Mining Hiroaki FUKASAWA, Hiroyuki KODAMA, Toshiki HIROGAKI, Eiichi AOYAMA and Keiji OGAWA
17:20								

November 9

9:00	Registration desk open (4th floor, Sonic city building)			
	Room A	Room B	Room C	Room D
	Advanced machining technology (2)	Evaluation of machine tool performance	M4 processes and micro-manufacturing (1)	Monitoring of machining process (1)
9:00	Pedro J. ARRAZOLA pjarrazola@eps.mondragon.edu Takashi MATSUMURA tmatsumu@cck.dendai.ac.jp	Shinji SHIMIZU s_simizu@hoffman.cc.sophia.ac.jp Yoshimi TAKEUCHI	Jun SHIMIZU jshimizu@mx.ibaraki.ac.jp Arata KANEKO kaneko-arata@tmu.ac.jp	Eiji KONDO kondo@mech.kagoshima-u.ac.jp Masahiko SATO sato@mech.tottori-u.ac.jp
9:20				

9:40				3241	Micro Cyclic Structuring using Micro Nano Form Rolling Tomohiro TSUJI, Minoru OTA, Keishi YAMAGUCHI, Yuta FUKUTOMI and Yoshitaka UEHARA			
10:00	3252	Ultrasonic Torsional Vibration Drilling of Aerospace Structure Material Erween RAHIM, Takayuki OGAWA, Akihiko MIURA, Hiroyuki SASAHARA, Rei Koyasu and Yasuhiro Yao	3276	Application of 3D-probe for Measuring Rotational Accuracy of Tilting Rotary Tables and Display Method for Practical Use Kazuya TAJIMA, Dassanayake MUDITHA, Chengri CUI and Masaomi TSUTSUMI	3250	Development of Nanostructured Foil Mold for Roller Nano Imprint Process Masahiko YOSHINO, Masao KOBAYASHI and Akinori YAMANAKA	3300	Relation between the SDSM Index and the Surface Roughness on the End Milling Process Masaki IZAWA
10:20	3275	Cutting Point Temperature and Its Effect on Tool Wears on Rotary Cutting under MQL Condition Kentaro SATAKE, Hiromasa YAMAMOTO, Hiroyuki SASAHARA and Masaomi TSUTSUMI	3240	Construction of an Error Map of Rotary Axes by Static R-test Soichi IBARAKI, Cefu HONG1 and Chiaki OYAMA	3279	Development of Metallic Microstructure Control Method by using Nano Plastic Forming Kohei IBUKI, Akinori YAMANAKA and Masahiko YOSHINO	3302	High-efficiency Machining Strategy for Non-uniformly Shaped Workpiece Using On-Machine Measurement Keiji OGAWA, Heisaburo NAKAGAWA and Toshihiro IWAO
10:40	3394	A Study on the High-Efficiency Cutting of Austenitic Stainless Steel Using an HfN-Type Coated Tool Hideharu KATO, Kazuhiro SHINTANI, Muneki NAKAMURA and Hiroaki SUGITA	3330	Non-contact R-test for Dynamic Measurement on Five-axis Machine Tools Cefu HONG and Soichi IBARAKI	3312	Study on Accuracy of Groove Profile in Micro End milling – Influence of Tool Run-out on Geometric Work-errors – Mitsuyoshi NOMURA, Wataru TAKAHASHI, Takayuki SHIBATA and Yoshihiko MURAKAMI	3242	Optimally Parameterized Wavelet Packet Transform for Incipient Machine Fault Diagnosis Muhammad F. YAQUB, Iqbal GONDAL and Joarder KAMRUZZAMAN
11:00	3352	End Milling of Titanium Alloy with a Textured Ball End Mill Toshiyuki OBIKAWA and Bunji KANI	3340	Test Method for Five-axis Machining Centres Based on Machining of Truncated Square Pyramid Katsunori OHTA, Kiyoshiro KIOTOSHI, CAO Van Trung, Tomoyuki SAIKI and Masaomi TSUTSUMI	3327	Nanomold Fabrication by Scratching and Its Application to Nanoimprint Lithography Jun SHIMIZU, Wataru OHSONE, Hirota OJIMA, Teppei ONUK, Libo ZHOU and Takeyuki YAMAMOTO	3339	Shear Angle Monitoring applying Cutting Force Observer in Turning Masaya TAKEI and Yasuhiro KAKINUMA
11:20	3329	Cutting Temperature Measurement on Milling Process of CFRP Takeshi YASHIRO, Takayuki OGAWA and Hiroyuki SASAHARA	3362	Dependency of Working Accuracy on Location of Truncated Conical Workpiece Machined by 5-axis Controlled Machine Tool with Geometric Error Koichi KIKKAWA, Masaki HIROSAWA, Hidekazu KIKUCHI, Yoshio MIZUGAKI and Hisanobu TERAJ	3396	Micro Hole Processing Using Electro-Chemical Discharge Machining Yasuhiro MOCHIMARU, Minoru OTA and Keishi YAMAGUCHI	3336	Fabrication of a Tool Insert in Which Micro Thermocouples Are Embedded for Monitoring Cutting Temperature Yuji TOMODA, Junichi HARASHITA and Jun SHINOZUKA
11:40	3417	A Novel Approach to Evaluate the Delamination Factor of CFRP Hole Erween RAHIM, Takayuki OGAWA, Akihiko MIURA, Hiroyuki SASAHARA, Rei Koyasu and Yasuhiro Yao	3321	Influence of Motion Error of Feed Drives Systems on Machined Surface Kentaro NISHIO, Ryuta SATO and Keiichi SHIRSE	3414	Improvement of the Forming Ability in Microgroove Molding by Ultrasonic Vibration Tianfeng ZHOU, Jiwang YAN, Sergey BOLOTOV, Tsunemoto KURIYAGAWA	3419	In-process Ultrasonic Monitoring Method for Cutting Process Hayato YOSHIOKA, Yusuke FUJIKI, Hiroshi SAWANO and Hidenori SHINNO
12:00	Lunch							
	Advanced machining technology (3)		Precision positioning and control technology (1)		M4 processes and micro-manufacturing (2)		Monitoring of machining process (2)	
	Jun SHINOZUKA jshinozu@ynu.ac.jp Hirohisa NARITA hnarita@fujita-hu.ac.jp		Tadahiko SHINSHI shinshi@pi.titech.ac.jp Koichi KIKKAWA kikkawa@mech.kyutech.ac.jp		Tsunemoto KURIYAGAWA tkuri@m.tains.tohoku.ac.jp Masahiko YOSHINO myoshino@mes.titech.ac.jp		Hayato Yoshioka yoshioka@pi.titech.ac.jp Masaki IZAWA izawa@nc-toyama.ac.jp	
13:20	3273	Study on Micro-groove Milling of a Microchannel Die – Selection Guidelines for Cutting Conditions with Micro End Mills – Kenichi IWATSUKA, Yukio MAEDA, Hideaki TANAKA, Takanori YAZAWA, and Shinya SUZUKI	3341	Development of a Servo-clinometer with a Laser Level CAO Van Trung, Kyosuke MATSUNAGA, Masaomi TSUTSUMI and Chengri CUI	3408	Fabrication of Antireflection Film using Roll Shape Glassy Carbon Mold with Moth-Eye Structures Jun TANIGUCHI, Noriyuki UNNO, Kaoru ADACHI, Yasuhisa TSUKAHARA, Takashi MATSUURA, Tatsuya NISHIMURA, Youji YAMADA and Hitoshi KAWANOWA	3384	Measurement of Machined Surface Temperature in Drilling Masahiko SATO, Hisataka TANAKA and Satoshi TAKEDA
13:40	3349	Generation of Regularly Aligned Micro Dimples on Curved Surface by Using Patch Division Milling Kai XU and Hiroyuki SASAHARA	3344	Improvement of Response Characteristics of Linear Motor Servo Systems Using Virtual Friction Hirofumi ITAGAKI, Masaomi TSUTSUMI and Hiroshi NIWA	3287	Fabrication of Micro-cantilever Structure Using Self-assembled Particles Kensaku YOSHINO, Arata KANEKO, Yasuhiro TANAKA and Nobuyuki MORONUKI	3303	Monitoring of Burr and Prefailure Phase in Microdrilling Operations using Thrust Force Signals Eiji KONDO, Ryoga KAME and Hiroshi MURAKAMI

14:00	3285	Cutting Tool for Bone Machining to Carry Out Roughing and Finishing in a Single Pass Naohiko SUGITA, Michihisa WATANABE, Yuu SANO, Makoto TERASHIMA and Mamoru MITSUISHI	3346	Resonance Frequency of Carriages for Linear Roller Guides Yasunori SAKAI and Masaomi TSUTSUMI	3286	CNT Adsorption and Micro-patterning of Spherical Silica Particles Tatsuya GOTO, Arata KANEKO, Yasuhiro TANAKA and Nobuyuki MORONUKI	3314	Development of Cutting Torque Measurement Technique for Milling Process with Small Diameter End Mill Shinji UEDA and Tadao KAWAI
14:20	3308	Study on the Machinability of Thermal Spraying Cylinder Liner Kan DING, Syuuji ADACHI and Kimio NISHIMURA	3388	Feedforward Control Method for Precise Motion Trajectory of Tool Center Point Based on Dynamic Model of NC Machine Tools Kotaro NAGAOKA, Atsushi MATSUBARA and Daisuke KONO	3323	Image Based Defect Detection Algorithm by Use of Wavelet Transformation Kaoru TAKAMORI, Hiroataka OJIMA, Libo ZHOU, Teppei ONUKI, Jun SHIMIZU and Takeyuki YAMAMOTO	3381	Development of an Intelligent Stage with Sensor-less Cutting Force and Torque Monitoring Function Takafumi KAMIGOCHI and Yasuhiro KAKINUMA
14:40	3367	Development of Tool Edge Temperature Measurement Method in Wet Cutting - Application for CBN and Poly Crystalline Diamond Tools- Hideto NISHIMOTO, Ryutaro TANAKA, Akira HOSOKAWA, Takashi UEDA and Tatsuaki FURUMOTO	3398	Study on Compensation of Quadrant Glitches with Two Peaks in Circular Motions of Machining Centers Takuro HIGUCHI, Hiromichi KUNISADA, Yoshinori KUNII, Ryuta SATO and Masaomi TSUTSUMI	3360	Analysis of 3 Dimensional Micro Plastic Deformation Phenomenon Using Indentation Method Yoshitaka UEHARA, Minoru OTA and Toshikazu NANBU	3372	Fast Detection of Chatter in End-Milling using Pseudo Auto-Correlation Function during Continuous Change of Spindle Speed Kenji SHIMANA, Eiji KONDO, Hiroko KARASHIMA and Norio KAWAGOISHI
15:00	3304	Tool Edge Temperature of Spiral Tap at Tapping -Grasp of Cutting Behavior and Measurement of Tool Edge Temperature by Two-color Pyrometer- Shuhei YAMAZAKI, Ryutaro TANAKA, Akira HOSOKAWA, Takashi UEDA, Tatsuaki FURUMOTO and Masato OKADA	3233	Wear Estimation of Ball Screw and Support Bearing Based on Servo Signals in Feed Drive System Ryuta SATO	3397	Finite-Difference-Time-Domain Analysis of Optical Properties of Ordered Nano-Dots Array Fabricated with Nano Plastic Forming Akinori YAMANAKA and Masahiko YOSHINO	3328	In-process Tool Flank Wear Detection in Intermittent Cutting Process by Face Milling Mitsuaki MURATA, Syuhei KUROKAWA, Osamu OHNISHI, Michio UNEDA and Toshiro DOI
15:20	Coffee break							
	Advanced machining technology (4)		Precision positioning and control technology (2)		Grinding technology		Environmentally conscious machining	
	Nobuyuki Moronuki moronuki@tmu.ac.jp Yasuhiro Kakinuma kakinuma@sd.keio.ac.jp		Atsushi MATSUBARA matsubara@prec.kyoto-u.ac.jp Ryuta SATO sato@mech.kobe-u.ac.jp		Minoru OTA m-ota@mech.kit.ac.jp Kazuhito OHASHI ohashi@mech.okayama-u.ac.jp		Fumihito ITOIGAWA itoigawa@nitech.ac.jp Katsuhiko SAKAI ksakai@ipc.shizuoka.ac.jp	
15:40	3359	Ultra High Speed Micro-milling Spindle Directly Supporting Endmill Shank by Aerostatic Bearings Fumitaka NISHIKAWA, Shigeka YOSHIMOTO and Kei SOMAYA	3230	Detection of Distance between Small-Diameter Endmill and Workpiece Based on Image Processing Yoshitaka AZUMA and Tsuneo KAWANO	3256	Development of Partially Ni-coated Diamond Abrasives for Electroplated Tools Yu ZHANG, Yasuhiro TANI, Junji MURATA and Takahiro HASHIZUME	3260	Evaluation of Process Performance for Sustainable Hard Machining Giovanna ROTELLA, Domenico UMBRELLLO, Oscar W. DILLON JR, I. S. JAWAHIR
16:00	3405	Experimental Verification of Ultrasonic Vibration Aided Drilling Process for Difficult-to-cut Material Hiromi ISOBE, Yusuke UEHARA, Manabu OKADA, Tomio HORIUCHI and Keisuke HARA	3392	Runout Compensation of Rotary Electrode in Hole Electrical Discharge Machining Yoshitaka UEYAMA, Tadahiko SHINSHI, Takashi YUZAWA, Shuichi FUJIKAWA and Xiaoyou ZHANG	3368	Mirror Grinding of High Chromium Roll Steel using Coarse Grain cBN Wheel Prepared by Micro Dressing Yoshio ICHIDA, Hideo UENO and Katsuya SHIMIZU	3237	Effects of Humidified Air and Lubricants on MQL Machining of Aluminum Junji KUHARA, Toshiaki WAKABAYASHI, Toru KAKIHARA, Toshifumi ATSUTA, Akira TSUKUDA, Norio SEMBONGI, Junichi SHIBATA and Satoshi SUDA
16:20	3386	Ultrasonically Assisted Fly Cutting for Fine Ceramics to Finish Glass Lens Mold Keisuke HARA, Hiromi ISOBE, Shu-ichi CHIBA and Keiko ABE	3376	A TWO-DOF Controlled Lens Drive Actuator for Off-Axis Laser Beam Cutting Yoshihiro MORIMOTO, Tadahiko SHINSHI, Tatsuki OKAMOTO and Takahiro NAKAI	3301	Study on Small Hole Open Process on Ceramics Kohei YAMAGUCHI and Yukitoshi IHARA	3257	Environmentally Conscious Deep Hole Drilling using Oil Mist Carried by Mixed Gas Katsuhiko SAKAI, Yasuo SUZUKI, Hiroshi SUYAMA and Kouki KANEDA
16:40	3313	Study on Micro Cutting of Tungsten Carbide by Diamond Tool Hiroo SHIZUKA, Koichi OKUDA, Masayuki NUNOBIKI and Yoshihiro YOKOYAMA	3267	Multi-modal Vibration Stage for Alignment of Micro-objects - Design Guideline of Multi-axis Alignment Stage - Kotaro OKUI, Toshitake TATENO and Akira KAKUTA	3383	Statistical Approach Optimizing Slant Feed Grinding Keita SHIMADA, Pay Jun LIEW, Tianfeng ZHOU, Jiwang YAN and Tsunemoto KURIYAGAWA	3315	Effects on Proposed End-milling Condition Decision-Support System Using Data Mining on Saving Power Consumption Hiroyuki KODAMA, Toshiki HIROGAKI, Eiichi AOYAMA, Keiji OGAWA and Junichi SAKAMOTO
17:00								
17:30	Banquet (4th floor, Sonic city hall)							

November 10

	Room A	Room B	Room C	Room D
	Ultra-precision machining	Nano/micro measurement and intelligent instruments (1)	Abrasive technology	Electrical machining (1)
9:00	Koichi OKUDA okuda@eng.u-hyogo.ac.jp Haruhisa SAKAMOTO h-sakamo@sophia.ac.jp	Yuki SHIMIZU yuki.shimizu@nano.mech.tohoku.ac.jp Hideaki TANAKA	Yoshio SAITO saitoy@mep.titech.ac.jp Jiwang YAN yanjw@pm.mech.tohoku.ac.jp	Akira OKADA okada@mech.okayama-u.ac.jp Shinya HAYAKAWA hayakawa.shinya@nitech.ac.jp
9:20				
9:40				
10:00	3378 Mist Cutting of Titanium Alloy at High Cutting Speed Junsuke FUJIWARA, Takaaki ARIMOTO and Katsuyuki SAKAI			
10:20	3265 Sliding Wear Characteristics of Single Crystal Diamond against Optical Glass Tamotsu IIZUKA, Yuuya MURATA, Makoto YAMAGUCHI, Shigeru UENO and Norio TAKATSUJI		3411 Study the Influence of Ultrasonic Vibration on Grinding of Ti6Al4V Mohsen GHAHRAMANI_NICK, Mohammad.R MOVAHHEDY, Javad AKBARI	
10:40	3371 Study on Formation of Films by a Spray Deposition Method for the Organic Thin Film Solar Cells Masahiko MURATA, Toshiro DOI, Syuhei KUROKAWA, Osamu OHNISHI, Michio UNEDA, Takanori IWAHASHI, Kunihito MIYAKE, Keiji MIYACHI and Yoshinori KOBAYASHI.	3239 A Developmental Study on Two Dimensional Laser Scale System for High Precision Machine Tool System Toru FUJIMORI, Kayoko TANIGUCHI, Chris ELLIS, Kazuo YAMAZAKI and Tojiro AOYAMA	3332 High Precision Ultrasonically Assisted Internal Grinding (UAIG) of Difficult-to-machining Materials using Metal Bonded Diamond Wheels Masakazu FUJIMOTO, Yongbo WU and Jianguo CAO	3248 Clarification of Surface Layer Temperature in EB Polishing by Unsteady Heat Conduction Analysis Tomohiro FUJITA, Akira OKADA, Yasuhiro OKAMOTO and Yoshiyuki UNO
11:00	3296 Removal Mechanism of Impacts by Powder Jet Machining Chihiro NISHIKAWA, Koichi MIZUTANI, Tianfeng ZHOU, Jiwang YAN and Tsunemoto KURIYAGAWA	3316 Measurement of Geometric Deviation on a Machining Center - Measurement Method of Roll using Laser- Yu KANAMARU, Naoki ASAKAWA, Masato OKADA, Toshihiro NAKAYABU, Kenichi HIROSAKI, Youichi TAMURA, Hideo YACHI, Akihiro SHIMIZU, Hiroyuki KAWARA and Koichi	3277 Improvement of Accuracy in Internal Grinding with Shape Modification on High Aspect Ratio Wheel Takashi ONISHI, Kazuhito OHASHI, Yuya YAMAMOTO, Moriaki SAKAKURA and Shinya TSUKAMOTO	3292 Clarification of EDM Phenomena by Spectroscopic Analysis Qu CHAO, Natsu WATARU and Kunieda MASANORI
11:20	3299 Patterned Self-assembly of Fine Particles and Its Application to Polishing Tool Nobuyuki MORONUKI and W. R. ZHANG	3251 Direct Detection of the Relative Position between a Micro-tool Tip and a Workpiece Surface Using Incoherent Light Shinya SUZUKI, Kazuhide KAMIYA, Kenichi IWATSUKA, Yukio MAEDA and Takashi NOMURA	3406 Roughness of High-speed Reciprocation Profile Ground Surface Nobuhito YOSHIHARA, Kyohei HOROYA, Naohiro NISHIKAWA, Masahiro MIZUNO and Toshiro IYAMA	3306 Electrolysis Free Micro EDM in Water Using Electrostatic Induction Feeding Method Tomohiro KOYANO and Masanori KUNIEDA
11:40	3290 3D Reproduction of a Snow Crystal by Stereolithography Yuya AOKI, Satoshi YANAGI, Akihiko KUBO, Jun'ichi TAMAKI, Takao KAMEDA, and A.M.M. Sharif Ullaha	3377 Height Measurement of Cutting Edge by a Laser Displacement Sensor Shinichi OSAWA, Yuki SHIMIZU, Wei GAO, Tsutomu FUKUDA, Akira KATO and Kouji KUBOTA	3370 Reciprocating Plunge Profile Grinding of Nickel-Based Superalloy Nimonic 80A with Ultrafine-Crystalline cBN Wheel Yoshio ICHIDA, Tatsuya IWAZAKI and Hideo UENO	3351 Reduction of Tool Wear in Non-contact Electrostatic Induction Feeding EDM Yuna YAHAGI, Wataru NATSU, Tomohiro KOYANO and Masanori KUNIEDA

12:00	Lunch							
	Advanced Die & Mold Manufacturing Technologies, Rapid Technologies and Additive Manufacturing		Nano/micro measurement and intelligent instruments (2)	Materials and surfaces	Electrical machining (2)			
	A.M.M.Sharif Ullah ullah@mail.kitami-it.ac.jp Takeshi NAKAMOTO nakamoto@faculty.chiba-u.jp		Yasuhiro TAKAYA takaya@mech.eng.osaka-u.ac.jp Shinya SUZUKI suzukish@nc-toyama.ac.jp	Nobuhito YOSHIIHARA yoshihara@iwate-u.ac.jp Yongbo WU wuyb@akita-pu.ac.jp	Masanori KUNIEDA kunieda@edm.t.u-tokyo.ac.jp Minoru OTA m-ota@mech.kit.ac.jp			
13:20	3228	Freeform Fabrication of Titanium Based Powder by Inkjet 3D Printer Nasuha SA'UDE, Mustaffa IBRAHIM, Nur Azera ISMAIL and Rahman IBRAHIM	3390	An Angle Sensor with a Laser Rangefinder Takayuki MEGURO, Yuki SHIMIZU and Wei GAO	3310	Permeability of Sintered Porous Metal in Finishing Process with Grinding and Electrical Discharge Surface Modification Keiji YAMADA, Junji TSUBOI, Katsuhiko SEKIYA and Yasuo YAMANE	3247	Influence of Carbon Fiber Direction on EDM Characteristics of CFRP Sho ICHII, Akira OKADA, Yasuhiro OKAMOTO and Yoshiyuki UNO
13:40	3244	Micro Part Reinforced by Unidirectional Short Fibers in Laser Photolithography by Applying Magnetic Field (Layered Thin Films with Aligned Short Fibers) Takeshi NAKAMOTO and Shinya KOJIMA	3231	Optically Controlled Surface Sensing Probe Enhanced by Radially Polarized Beam Masaki MICHIHATA, Yasuhiro TAKAYA and Terutake HAYASHI	3234	Improvement of Razor Blade Surface Integrity by Plasma Nitriding Tsukasa TAMAOKI, Kensuke UEMURA, Akira OKADA and Yoshiyuki UNO	3284	Effect of Short-Circuiting in Electrical Discharge Machining of Carbon Fiber Reinforced Plastics Akihiro ITO, Shinya HAYAKAWA, Fumihito ITOIGAWA and Takashi NAKAMURA
14:00	3274	Residual Stress and Deformation of Shell Structure Fabricated by Direct Metal Lamination Using Arc Discharge Takeyuki ABE and Hiroyuki SASAHARA	3280	Analysis of Measurement Errors of a Diffuse-Reflection Type Laser Displacement Sensor for Profile Measurement Yoshihiro KIMURA, Atsushi MATSUBARA and Yusuke KOIKE	3261	Effect of CFRP Inter Laminar Shear Strength by SPWC Method Takahiro MIURA, Daisuke TABUCHI, Takao SAJIMA, Toshiro DOI and Osamu OHNISHI	3369	Development of Deburring Technology with Whirling EDM Vitchuda LERTPHOKANONT, Atsushi NAKAYAMA, Minoru OTA, Kai EGASHIRA, Keishi YAMAGUCHI, Naomi KAWADA and Shinji KOUNO
14:20	3353	Development of a Dynamic Mask Stereolithography Apparatus using Curable Slurry for Fabricating High Strength Alumina Ceramic Parts Cho-Pei Jiang, Jia-Chang Wang and Chang-Cheng Chen	3326	Advanced Verification Method using Ferromagnetic Resonance on TMR Head Durability against Lapping Hideaki TANAKA, Takehisa YOSHIKAWA, Kenichi IWATSUKA and Yukio MAEDA	3387	Q Factor Improvement of DLC Nanoresonator Using a Fluorine Surface Coating Reo KOMETANI, Shin'ichi WARISAWA and Sunao ISHIIHARA	3413	Micro-Electrical Discharge Machining of Reaction-Bonded Silicon Carbide (RB-SiC) Pay Jun LIEW, Jiwang YAN and Tsunemoto KURIYAGAWA
14:40	3365	Proposal of High Speed Raster Scanning in Stereolithography Kenji YAMAZAWA and Toshiki NIINO	3389	Wavelet Analysis for Precision Measurement of a Micro-part Toshiki TAKEISHI, Xu BIN, Yuki SHIMIZU and Wei GAO	3266	True Contact Part Measurement on Rough Surface by Optical Methodology in High Load Region Takahiro KUBO, Jiang ZHU, Tomohisa TANAKA and Yoshio SAITO		
15:00								