ICPE2014 Poster Session

P01: Cutting performance of a driven-rotary tool on finish turning of hardened steel
Akihiro Kishimoto, Hideharu Kato, Yoshitaka Morimoto, Kazuyuki Kubota, Katsuhiro Nakagaki

P02: Smooth Micro-unevenness Surface Generation of Difficult-to-Cut Material by Small Diameter End milling and Magnetic Polishing
Tatsuya Furuki, Rei Ma, Toshiki Hirogaki, Eiichi Aoyama, Keiji Ogawa

P03: Analysis of cutting force in elastomer endmilling
Koji Teramoto, Takahiro Kunishima, Yutaro Furuya

P04: Multi-Frequency solution for chatter stability analysis in low immersion end milling with irregular pitch / variable helix cutters
Takuya Kojima, Norikazu Suzuki, Rei Hino, Eiji Shamoto

P05: Removal Mechanism in Catalyst-Referred Etching Process for SiC Planarization
Pho Van Bui, Kouji Inagaki, Yasuhisa Sano, Kazuto Yamauchi, Yoshitada Morikawa

P06: Development of hole drilling system by EDM with micro electrode forming on the same machine.
Atsutoshi Hirao, Takayuki Tani, Naotake Mohri, Nagao Saito

P07: Ultra-precision turning for Fresnel lens mold based on B axis rotation
Yong Li

P08: Studies on Reduction of Grinding Fluid in Cylindrical Plunge Grinding
Keita Mishima, Akira Hosokawa, Takashi Ueda, Tatsuaki Furumoto, Tomohiro Koyano, Takahiro Kiwata

P09: Study on high precision drilling of CFRP plates by using ball-nose end mill, Influence on the large diameter drilling process with the pre-drilling process on the CFRP plates
Fukuhito Nagata, Shigehiko Sakamoto

P10: Wear behavior of diamond coated endmill in cutting of cemented carbide
Akihiro Yoshida, Masato Okada, Tatsuaki Furumoto, Hidehito Watanabe, Naoki Asakawa

P11: A Study on grain actions at processing part of multi-wire saw
Kazutaka Yotsuda, Hitoshi Suwabe, Ken-ichi Ishikawa

P12: Estimation of cutting force to control thrust force during turning processing
Yukihiro Yamasaki, Hirofumi Hidai, Noboru Morita, Noboru Takano, Shigeru Yamada, Souta Matsusaka, Akira Chiba

P13: Basic Study on Polishing of Fused Silica with Fixed Alumina Abrasive Polishing Pad
Ryunosuke Sato, Koji Kato, Tatsuya Iwasaki

P14: Influence of cutting conditions on surface integrity in milling for super elasto-plastic titanium alloy using small ball end mill tool
Akihiro Kitamura, Hideharu Kato, Noriaki Ikenaga, Hitomi Sakai, Shota Kohata

P15: Estimation of the cantilever beam bending of a non-rigid cutting mechanism used for the fabrication of micro-grooves
German Herrera-Granados, Kiwamu Ashida, Ichiro Ogura, Yuichi Okazaki, Noboru Morita, Hirofumi Hidai, Souta Matsusaka, Akira Chiba

P16: New truing method of small diameter CBN wheel for internal grinding
Osamu Fukuyama, Junichiro Takagi

P17: Experimental Verification of Discrepancy on Directions of Chip Flow and Resultant Cutting Resistance in Oblique Cutting
Yoshio Mizugaki, Koichi Kikkawa, Daiki Kakubo, Shunsuke Baba, Tatsuki Ichinose

P18: Deburring of Needle Point Using Slurry Flow with Cavitation
Kazuhito Ohashi, Yuto Maeda, Nan Lu, Shinya Tsukamoto

P19: UV-truing of diamond grit-arranged wheel and evaluation of its cutting performance
Mutsumi Touge, Takeshi Sakamoto, Yousuke Nambu, Kazuya Takaki, Akihisa Kubota, Tomoyuki Kawashita

P20: Investigation of the anodic oxide layer/SiC interface morphology during anodic oxidation assisted polishing
Kenji Hosoya, Naoki Shimozono, Yusuke Imanishi, Katsuyoshi Endo, Kazuya Yamamura

P21: Effects of Shape Formation after Laser Hardening in Fabrication of Micro-cutting Edge
Keiji Ogawa, Hirotaka Tanabe, Heisaburo Nakagawa

P22: Removal Rate of Plasma Chemical Vaporization Machining of Intentionally Damaged Surface by Mechanical Action
Kousuke Shiozawa, Yasuhisa Sano, Toshiro Doi, Syuhei Kurokawa, Hideo Aida, Osamu Ohnishi, Michio Uneda, Yu Okada, Kazuto Yamauchi

P23: Machining Characteristics with Wire Tool of Anisotropic Materials
Kenta Matsumoto

P24: Debris-free laser drilling and grooving of single-crystalline silicon using liquid etchant and optical fibers
Takashi Hosono, Kazuhiko Sakaki

P25: Trial Manufacture of Polycrystalline-Diamond Square-End Mill and Precision Milling of Molds of Sintered Carbides
Takeshi Watanabe, Takashi Goto, Masahiko Jin

P26: A study on milling for super elasto-plastic titanium alloy using small ball end mill tool
Hitomi Sakai, Hideharu Kato, Akihiro Kitamura, Noriaki Ikenaga, Shota Kohata

P27: Study on surface processing using femto pulse train beam
Terutake Hayashi, Yusuke Fukuta, Masaki Michihata, Yasuhiro Takaya

P28: Fin Fabrication inside a Hole by Means of Electrical Discharge Machining and Reciprocating Block Slider Crank Mechanism, Improvement of Machining Device and Verification of Its Potential
Tohru Ishida, Hiroki Masuda, Yoshimi Takeuchi

P29: Study of ultrasonically assisted high speed turning for stainless steel
Keisuke Hara, Ryo Sasaki, Toshihiko Koiwa, Hiromi Isobe

P30: Fabrication of Lens Array Mold by Electrical Discharge Machining with Spherical Ball Electrode
Hideo Takino, Takahiro Hosaka

P31: Electrochemical Polishing Assisted by Ultrasonic Vibration
Jeong Woo Park, Uk Su Kim, Morita Noboru

P32: 3D-micro shape generation of polymer by using 355 nm pico-second pulse laser
Akira Kakuta, Kyosuke Kanou

P33: Laser percussion drilling for highly reflective metals with external interdigital electrodes
Chao-Ching Ho, Chia-Lung Kuo

P34: Development of CAM System for 3D Surface Machining with CNC Lathe, Tool Path Generation Considering Acceleration of X Axis
Keigo Takasugi, Yoshitaka Morimoto, Katsuhiro Nakagaki, Yoshiyuki Kaneko

P35: Automation of Gas Cutting by an Industrial Robot -Tool Path Generation Using Image Processing-
Kanae Yamamoto, Naoki Asakawa, Masato Okada

P36: Development of tool path generation lower calculation cost -Simplifying of 3D model -
Ryota Kito, Keigo Takasugi, Naoki Asakawa, Masato Okada

P37: MR-based 3D prototyping for information appliances using random dot markers and fingernail color detection
Satoshi Kanai, Hiroaki Date, Jiabin Guan

P38: Fast planning method of measurement posture to avoid interference between complicated surface and laser line of CCD displacement sensor.
Jun'ichi Kaneko, Kenichiro Horio

P39: Experimental Validation of Tool Path Generation Error in CAD/CAM Process
Shinnosuke Kita, Yoshitaka Morimoto, Keigo Takasugi

P40: Assembly process automation by industrial robot with using force control
Tetsushi Nakai, Akira Maruyama, Yuichi Ishida

P41: Simulation and Experimental Research on Load Characteristics of Ultrasonic Transducers
Zhen Yao, Zhong Ning Guo, Yong Jun Zhang, Yong Jun Tang

P42: Dezentralized intelligent drives boost productivity and accuracy
Uwe Weinmann, Tomoyuki Ei, Hirofumi Yoshida

P43: Energy Consumption of Spindle and Feed Drive Systems of NC Machine Tool in End-milling Operation
Hironori Kashiwagi, Ryuta Sato, Akio Hayashi, Keiichi Shirase

P44: Geometrical Simulation of Finished Surface Generated by Ball End-milling with Dynamic Motion Error of Feed Drive Systems
Yuki Sato, Ryuta Sato, Keiichi Shirase, Nobu Nakayama, Mitsunari Oda, Shingo Kajikawa, Gianni Camparelli, Antonio Scippa

P45: Evaluation of strength properties of AlCrSiN Coating by a Micro Slurry-Jet Erosion (MSE) Method
Yoshiyasu Nanjo, Kenichi Okazaki, Eisuke Sentoku, Yoshiro Iwai

P46: Rotational motion accuracy of water driven spindle 1st. report: Axial motion accuracy
Takafumi Higuchi, Kenji Suzuki, Yohichi Nakao

P47: Design study of spindle supported by high stiffness water hydrostatic thrust bearings
Kohei Yamada, Kohei Nagasaka, Kenji Suzuki, Yohichi Nakao

P48: Development of novel lapping plates with porous structure fabricated by metallic fiber sintering
Yusuke Kokubu, Yasuhiro Tani, Junji Murata, Yu Zhang

P49: Novel non-woven polishing pad impregnated with epoxy resin
Hiroki Shindo, Yasuhiro Tani, Junji Murata, Yu Zhang

P50: Development of higher productivity multitasking machine
Kenichi Nakanishi

P51: Development of ball drive system
Mitsuru Omori, Junichiro Ishizaki, Takuro Nishimura

P52: Fabrication of Standing Surface Acoustic Wave Microchip for Real-time Separation of Microparticles
Jongho Park, Yasuko Yanagida, Takeshi Hatsuzawa

P53: Analysis of TiO2 nanotool handling characteristics for microplastic structures based on laser trapping technique
Fumiya Kaji, Yuki Yamaguchi, Satoru Takahashi, Kiyoshi Takamasu

P54: Dynamic characteristic evaluation tool based on the scanning electron microscope for the nanomechanical resonant device
Reo Kometani, Kazuhiro Nakano, Sunao Ishihara, Shin'ichi Warisawa

P55: The three-dimensional nanostructure fabrication by the real-time feedback control of the scanning speed on focused-ion-beam chemical vapor deposition, and their characterizations
Dengji Guo, Shin'ichi Warisawa, Sunao Ishihara, Reo Kometani

P56: Ultra high-resolution wavelength detection by an optomechanical resonator with U-shaped cavities
Reo Kometani, Kazuki Moriya, Jean Jacques Delaunay, Shin'ichi Warisawa, Sunao Ishihara

P57: Characterizations of the carbon nano resonant structure fabricated from SU-8 by FIB/EB dual beam lithography
Yuto Miyata, Shinichi Warisawa, Sunao Ishihara, Reo Kometani

P58: Noncontact micro manipulation with multiple microflows
Hisayuki Aoyama, Asa Ichinozuka, Qin Zhang, Weijun Huang

P59: Vehicle Interior Noise Control of Ultra-Compact Electric Vehicle(Fundamental Consideration Using Rectangulare Enclosure)
Ryosuke Suzuki, Taro Kato, Hideaki Kato, Shinya Hasegawa, Yasuo Oshinoya

P60: Bending Levitation Control for Flexible Steel Plate (Experimental consideration on application of sliding mode control)
Hiroki Marumori, Hikaru Yonezawa, Takayoshi Narita, Shinya Hasegawa, Yasuo Oshinoya

P61: Active Seat Suspension for Ultra-Compact Vehicle, Fundamental Consideration on Neck Myoelectric Potential When Fall from the Bump
Masaki Ishida, Masahiro Mashino, Keita Sunaga, Hideaki Kato, Shinya Hasegawa, Yasuo Oshinoya

P62: Automation of metal hammering by linear servomotor -Improvement of form accuracy by form measurement-
Hidetake Tanaka, Kaoru Hoshino, Naoki Asakawa

P63: Design of speed control system of water driven stage (Influence of external load on table speed)
Yusuke Torii, Yohichi Nakao, Kenji Suzuki

P64: Proposal of Pressure Sensor for Air Gap in Ultrasonic Suspension
Masaya Takasaki, Ryutaro Chida, Shota Chino, Yuji Ishino, Takeshi Mizuno

P65: 3D obstacle detection using 2D laser range sensor for powered wheelchair
Kohei Kato, Hiroaki Seki, Yoshitsugu Kamiya, Masatoshi Hikizu

P66: Estimation of Levitation Height of Vertically Vibrating Flat Plate
Akihiro Torii, Shori Sone, Kae Doki

P67: Automation of cutting for block of piled gold leaves and papers
Yuta Horibe, Hiroaki Seki, Yoshitsugu Kamiya, Masatoshi Hikidu

P68: Study on durability assessment of mold-release agents for ultraviolet nanoimprint lithography
Kota Funakoshi, Ryo Tsuboi, Ian Thomas Clark, Toshiro Okawa, Jun Taniguchi, Shinya Sasaki

P69: Surface damage on high-quality synthetic type IIa diamond crystals polished by mechanical and chemical process
Natsuo Tatsumi, Katsuko Harano, Hitoshi Sumiya

P70: A novel design concept of slide guideway focusing on elastic compliance of contact surface
Satoru Maegawa, Fumihiro Itoigawa, Takashi Nakamura

P71: Development of preparing method of micro-textured DLC film and evaluation of its wear resistance
Yumi Yoshida, Yoshinao Iwamoto, Makoto Matsuo, Hiroki Akasaka, Naoto Ohtake

P72: Perspective sensory measurement method using multi view point 3D glass-free display (2nd report)
Yoshihito Kikuchi, Takahiro Yamanoi

P73: Nanoscale measurement of whole cylinder surface with laser microscope with wide field of view
Isami Nitta, Yosuke Tsukiyama, Naoyuki Fukushima

P74: Comparative investigations of analysis methods in thickness inspections of ultra thin semiconductor wafers by means of white light reflectometry
Teppei Onuki, Hirotaka Ojima, Jun Shimizu, Libo Zhou

P75: A Study on Thermal Deformation Estimation of Crankshaft Miller
Shinobu Sakai, Koetsu Yamazaki, Takeshi Suzuki, Kouji Asada

P76: Visualizing Common and Collision Requirements of Multiple Stakeholders for Service Improvement
Yutaro Nemoto, Kentaro Uei, Hiroki Tanaka, Fumiya Akasaka, Koji Kimita, Keita Sato, Yoshiki Shimomura

P77: Grinding-less finish machining for hardened steel parts by use of PcBN insert with sharp cutting edge prepared by pulse laser processing
Yusuke Mabuchi, Fumihiro Itoigawa, Keiichi Kawata, Tetsuro Suganuma, Takashi Nakamura

P78: A proposal to Design Sustainable Manufacturing Scenario
Yuji Mizuno, Yusuke Kishita, Gaku Miyake, Tomonori Taniguchi, Shinichi Fukushige, Yasushi Umeda

P79: Additive Manufacturing by use of Thixotropic Materials under Shaking Vibration
Toshitake Tateno, Hayate Ogo, Akira Kakuta

P80: Segmentation and Connection Design for Parallel Fabrication in Additive Manufacturing, Strength Evaluation of Elongated Cylindrical Models
Toshitake Tateno, Toshiki Urabe, Seiji Toyofuku

P81: Precision v-shape forming of CFRTP plate
Takashi Konda, Mitsuhiko Taka, Mitsugu Kimizu, Wataru Okumura, Takeshi Yoneyama, Daichi Tatsuno, Takashi Moriyasu

P82: Dimension of microstructure optimization in a plastic injection molding using Taguchi design method
Chil-Chyuan Kuo

P83: Release Agent Properties in Ultraviolet Nanoimprint Lithography using High-Aspect-Ratio Nanoscale Molds
Jun Taniguchi, Junki Takahashi

P84: Moldability of Injection Compression Molding of ABS Resin with Rapid Heating and Cooling Molding using Aluminum Alloy Mold
Makoto Niikawa, Yuta Matsui, Hiroshi Yamagata, Wataru Oikawa

P85: Consideration of the integrity of various free-curved surfaces burnished by a parallel mechanism type machine tool with force
control
Kei Watanabe, Masato Okada, Taira Iwasaki, Hiroshi Tachiya, Hiroaki Kozuka

P86: Simulation of ultra-short pulsed laser ablation for glass cutting
Fumitaka Motomura

P87: Control of carbon nanofibers configuration on glassy carbon by two-step ion beam irradiation method
Jun Taniguchi, Yuki Konno

P88: Development of Areal Wavelet Transform for the 2D images
Hirotaka Ojima, Libo Zhou, Jun Shimizu, Teppei Onuki, Taiju Suzuki

P89: Reduction of Tightening Torque for Miniature Screw Threads by Supersonic Excitation
Koichi Kikkawa, Masataka Ezaki, Yoshio Mizugaki

P90: Ultrasonic Single Point Incremental Microforming of the Complicated Shapes of Shell Structures
Toshiyuki Obikawa, Mamoru Hayashi

P91: Coupled Nanomechanical Resonator with Frequency Tuning Capability
Shin'ichi Warisawa, Hiroaki Tsuno, Reo Kometani, Sunao Ishihara

P92: Wireless Power Transfer
Shunsuke Okada, Hirokazu Kouda, Akinori Tamura,and Takaaki Watanabe