Schedule

13th November, 2017

17:00 20:00	Registration desk open (Welcome reception with light snack)

14th November, 2017

Opening and Plenary session

8:20	Registration desk open
9:00	Opening speech
9:10	Plenary lecture 1 Mr. Norihisa Adachi
10:10	Short break
10:30	Plenary lecture 2 Prof. Hideki Kyogoku
11:30	Lunch

Technical Session

	Room 1	Room 2	Room 3	Room 4	Room 5
12:40 13:00 13:20 13:40 14:00 14:20	OS03. Multi-axis control and Multi-tasking machining 【6】	OS02. Evaluation of machine tool performance 【6】	OS24. Manufacturing systems, supply chain and scheduling【11】	OS11. Laser processing 【11】	OS18. Digital design and digital manufacturing (CAD/CAM) 【10】
14:40	Coffee break				
15:00 15:20 15:40 16:00 16:20 16:40	OS06. Analytical advancement of machining process 【6】	OS21. Surface and tribology 【6】	OS24. Manufacturing systems, supply chain and scheduling	OS11. Laser processing	OS18. Digital design and digital manufacturing (CAD/CAM)

15th November, 2017

Plenary session

8:20	Registration desk open
10:30	Plenary lecture 3 Prof. Kevin Chou
11:30	Lunch

Technical Session

	Room 1	Room 2	Room 3	Room 4	Room 5
12:40 13:00 13:20 13:40 14:00 14:20	OS12. M4 processes 【7】	OS05. Advanced machining technologies 【20】	OS07. Ultra-precision machining 【6】	OS08. Grinding technology, OS09. New developments in abrasive finishing 【9】	OS19. Nano/Micro machining, OS23. Advanced manufacturing technologies 【9】
14:40	Coffee break				
15:00 15:20 15:40 16:00 16:20	OS12. M4 processes	OS05. Advanced machining technologies	OS17. Rapid prototyping technologies and additive manufacturing 【5】	OS08. Grinding technology, OS09. New developments in abrasive finishing	OS19. Nano/Micro machining, OS23. Advanced manufacturing technologies

Banquet

18:00 20:00	ANA Crowne Plaza Hiroshima

16th November, 2017
Technical Session

9:00	Registration desk open				
	Room 1	Room 2	Room 3	Room 4	Room 5
9:40	OS01. Advanced machine tool, OS04. Mechatronics and control technology【12】	OS05. Advanced machining technologies	OS16. Monitoring and control of machining process 【12】	OS22. Machine and mechanical elements【3】	
10:00					OS14. Nano/Micro measurement and intelligent instruments【11】
10:20					
10:40				OS20. Non-traditional machining 【3】	
11:00					
11:20					
11:40	Lunch				
12:40	OS01. Advanced machine tool, OS04. Mechatronics and control technology	OS05. Advanced machining technologies	OS16. Monitoring and control of machining process	OS10. Electrical machining【6】	OS14. Nano/Micro measurement and intelligent instruments
13:00					
13:20					
13:40					
14:00					
14:20					

17th November, 2017
Factory Tour

8:30	International Conference Center Hiroshima
9:00	MAZDA
11:00	IHI
12:30	Yamato Museum (Kure Maritime Museum), Tetsunokujira [Free time]
	JR Higashihiroshima Station
	Hirosima Airport

13th November, 2017

17:00 20:00	Registration desk open (Welcome reception with light snack)

14th November, 2017

Opening and Plenary session

8:20	Registration desk open
9:00	Opening speech
9:10	Plenary lecture 1 Mazda Monotsukuri Innovation Mr. Norihisa Adachi
10:10	Short break
10:30	Plenary lecture 2 The research status and development trend of metal additive manufacturing technology Prof. Hideki Kyogoku
11:30	Lunch

Technical Session

	Room 1		Room 2		Room 3		Room 4		Room 5	
	OS03. Multi-axis control and Multi-tasking machining		**OS02. Evaluation of machine tool performance**		**OS24. Manufacturing systems, supply chain and scheduling**		**OS11. Laser processing**		**OS18. Digital design and digital manufacturing (CAD/CAM)**	
	Koichi MORISHIGE (The University of Electro-Communications) Jun'ichi KANEKO(Saitama University)		**Prof. Yukitoshi IHARA (Osaka Institute of Technology) Prof. Soichi IBARAKI (Hiroshima**		**Yoshitaka Tanimizu (Osaka Prefecture University) Toru Eguchi (Hiroshima University)**		**Yasuhiro Okamoto (Okayama University)**		**Fumiki TANAKA (Hokkaido University)**	
12:40	A01 (045)	Motion Accuracy Enhancement of 5-axis Machine Tools by Modified CL-data Ryuta SATO (1)(*)(c) Shogo HASEGAWA (1) Keiichi SHIRASE (1) Masanobu HASEGAWA (2) Akira SAITO (2) Takayuki IWASAKI (2) (1) Kobe University (2) IHI Corporation	B01 (012)	Estimation of Power Consumption of Compact Five-Axis-Controlled Machine Tools with Strain Wave Gear Rotary Axes Based on Servo Interior Information Takumi FUJIMURA (1)(*)(c) Toshiki HIROGAKI (1) Eiichi AOYAMA (1) (1) Doshisha University	C01 (081)	Coevolutionary Genetic Algorithm Based Nesting Scheduling for Sheet Metal Processing Tatsuhiko SAKAGUCHI (1)(*)(c) Kohki MATSUMOTO (1) Naoki UCHIYAMA (1) (1) Toyohashi University of Technology	D01 (069)	Healing of micro-cracks in optical glass using a pulsed laser Nozomi TAKAYAMA (1)(*)(c) Yuta NISHIDE (2) Jiwang YAN (1) (1) Keio University (2) Olympus Corporation	E01 (138)	A Study on Workpiece Shapes During a Rough Machining Operation Based on Topology Optimization Shingo TAKAHASHI (1)(*)(c) Keiichi NAKAMOTO (1) (1) Tokyo University of Agriculture and Technology
13:00	A02 (097)	Investigation of the influence of NC controller and control mode by machining tests of blades on machining time Masanobu HASEGAWA (1)(*)(c) Akira SAITO (1) Takayuki IWASAKI (1) Ryuta SATO (2) (1) IHI Corporation (2) Kobe University	B02 (048)	Study on the S-shapedTest Piece of 5-Axis Machining Center Tatsuo Nakai (1)(*)(c) Yukitoshi Ihara (1) (1) Osaka Institute of Technology	C02 (126)	A Method for Flexible Job-Shop Scheduling Considering Workers and Teams Eiji MORINAGA (1)(*)(c) Yuki SAKAGUCHI (1) Hidefumi WAKAMATSU (1) Eiji ARAI (1) (1) Osaka University	D02 (010)	Introduction of Compressive Residual Stress into Alloy Tool Steel by Submerged Laser Peening Utilizing Laser Cavitation Impact Hitoshi SOYAMA (1)(*)(c) (1) Tohoku University	E02 (141)	A Study on Machining Error Estimation of Micro Complicated Shapes by On-machine Scanning Measurement Taira KON (1)(*) Keiichi NAKAMOTO (1)(c) Yoshimi TAKEUCHI (2) (1) Tokyo University of Agriculture and Technology (2) Chubu University
13:20	A03 (098)	Comparison of 4-axis and 5-axis Simultaneous Machining of Complex Shaped Blade Akira SAITO (1)(*) Masanobu HASEGAWA (1)(c) Takayuki IWASAKI (1) Ryuta SATO (2) (1) IHI Corporation (2) Kobe University	B03 (020)	Performance Improvement of Machine Tool by High Accuracy Calibration of Built-in Rotary Encoders Nobuyuki ISHII (1)(*)(c) Kayoko TANIGUCHI (2) Kazuo YAMAZAKI (3) Hideki AOYAMA (1) (1) Keio University (2) Magnescale Co., Ltd. (3) University of California at Davis	C03 (134)	Job shop scheduling for meeting due dates and minimizing overtime with the constraint of the number of operators Toru EGUCHI (1)(c) Koji OHAMA (1) (*) Taku DAIDO (1) Takeshi MURAYAMA (1) (1) Hiroshima University	D03 (132)	Relationship between solidification time and porosity with directed energy deposition of Inconel 718 Tatsuhiko KURIYA (1)(*)(c) Ryo KOIKE (1) Yasuhiro KAKINUMA (1) Takanori MORI (2) (1) Keio University (2) DMG MORI CO., LTD.	E03 (130)	Model for 3D Printing Created from Multiview 2D Silhouette Images Chao-Yaug LIAO (1)(*)(c) You-Lin Ren (2) Douglas W. WANG (2) Jiing-Yih LAI (1) Ju-Yi LEE (1) (1) National Central University (2) Ortery Technologies, Inc.
13:40	A04 (062)	Study on analytical technique in a smooth design of multi-tasking machine Kenichi NAKANISHI (1)(2)(*)(c) Jiro SAKAMOTO (2) (1) Nakamura-tome precision industry co., ltd. (2) Kanazawa University	B04 (034)	A Method for Evaluating the Speed and Accuracy of CNC Machine Tools Toshiaki OTSUKI (1)(*)(c) Hiroyuki SASAHARA (1) Ryuta SATO (2) (1) Tokyo University of Agriculture and Technology (2) Kobe University	C04 (168)	A partial modification method for disturbed production schedules by using hybrid genetic algorithm Tomoya TANIKAWA (1)(*) Yoshitaka TANIMIZU (1) (1) Osaka Prefecture University	D04 (154)	Laser Joining of A5052 Aluminum Alloy and Engineering Plastic Polycarbonate Using an Insert Material Ryoichi KUWANO (1)(*)(c) Makoto HINO (1) Norihito NAGATA (2) Kazuya NAGATA (3) Tsuyoshi TOKUNAGA (4) (1) Hiroshima Institute of Technology (2) Surtech Nagata Co.,Ltd. (3) Toyama Prefectural University (4) Chiba Institute of Technology	E04 (059)	Automated Finishing of Organ Models Created by 3D Printing Yoshihide TAMAKI (1)(*)(c) Kohji NIWA (2) Anthony BEAUCAMP (3) Yoshimi TAKEUCHI (1) (1) Chubu University (2) DMG MORI Co. Ltd. (3) Kyoto University
14:00	A05 (065)	Surface Texture Control by Turn-mill Process Using Ball Endmill Shunya KAIBU (1)(*)(c) Yukitoshi IHARA (1) Kazutaka TSUJI (1) (1) Osaka Institute of Technology	B05 (064)	Extension of Machine Tool Kinematic Model to Direction- and Velocity-dependent Error Motions and Their Cross-talk Soichi IBARAKI (1)(*)(c) Mashu HIRUYA (2) Isao OSHITA (3) Kazuya FUJIMOTO (3) (1) Hiroshima University (2) Kyoto University (3) Yasda Precision Tools, K. K.	C05 (109)	An evolutionary algorithm for assembly scheduling problems with release times Ryota NAKATANI (1)(*)(c) Yoshitaka TANIMIZU (1) (1) Osaka Prefecture University	D05 (013)	Laser Quenching and Forming Method for Thin Steel Plate under Preheating Conditions Yuki MANABE (1)(*)(c) Tomonao HIROTA (1) Toshiki HIROGAKI (1) Eiichi AOYAMA (1) Keiji OGAWA (2) (1)Doshisha University (2) Ryukoku University	E05 (104)	Research on mechanistic modeling of machining error for model-based elastomer end-milling Wu ZEJIAN (1)(*)(c) Koji TERAMOTO (1) Takuma ARAKI (1) Hiroki MATSUMOTO (1) (1) Muroran Institute of Technology
14:20	A06 (088)	Development of Cutting Force Experience System for Milling Process Using Haptic Device Kazuya HONDA (1)(*)(c) Koichi MORISHIGE (1) (1) The University of Electro-Communications	B06 (082)	Friction Characteristics of High-precision Machine Tools Supported by Sliding Guideways Tomoya FUJITA(1)(*)(c) Kazuki TAKAHEI(1) Go SATO(1) Takashi KAI(1) (1) Mitsubishi Electric Corporation	C06 (067)	A basic study on analysis of heart rate variability in workers for dynamic production managementin cellular manufacturing systems Yoshitaka Tanimizu (1) Takayuki Katsumaru (1) Daiki Tanaka (1) (*)(c) (1) Osaka Prefecture University	D06 (047)	Study on the accuracy improvement for laser forming processing of micro-wire Jiang ZHU (1)(*)(c) Akira TAJIMA (1) Tomohisa TANAKA (1) Hayato YOSHIOKA (1) (1) Tokyo Institute of Technology	E06 (018)	Multi-scale Product Design and Lifecycle Simulation System Kazuhiro SAKITA (1)(*)(c) (1) Freelance
14:40	Coffee break									

	OS06. Analytical advancement of machining process		OS21. Surface and tribology		OS24. Manufacturing systems, supply chain and scheduling		OS11. Laser processing		OS18. Digital design and digital manufacturing (CAD/CAM)	
	Norikazu Suzuki (Nagoya University) Hirohisa Nariata (Meijyo University)		Takanori Yazawa (Nagasaki University)		Tatsuhiko Sakaguchi (Toyohashi University of Technology) Eiji Morinaga (Osaka University)		Jiwang Yan (Keio University)		Koji TERAMOTO (Muroran Institute of Technology)	
15:00	A07 (120)	Creation of New Eccentric Shaped Ball End-Mill without Separation Line Hiroyuki WAKAYAMA (1)(*)(c) Masatoshi SAKURAI (2) Noriyuki IMAIZUMI (2) Katsuji SAKAI (2) Yoshimi TAKEUCHI (1) (1) Chubu University (2) OSG Corporation	B07 (139)	Seizure in Various Metallic Materials of Hot Hammer Die-Forging Yuki MORIBE (1)(*)(c) Kazuya HORIE (1) Makoto NANKO (1) Yoshietsu OOTA (2) (1) Nagaoka University of Technology (2) Johetsu Industry Co., Ltd.	C07 (155)	Formularization of Relationship between Energy Consumption Per Production Throughput and Lot size Concerning Variable Lot size in Manufacturing Line Hironori HIBINO (1)(c) Takamasa HORIKAWA (1)(*) Takayuki KOBAYASHI (1) Makoto YAMAGUCHI (2) (1) Tokyo University of Science (2) Akita University	D07 (014)	Study on Shape Variation of Periodic Surface Nanostructures Produced with Ultrashort Pulse Laser for Control of Cell Spreading Direction Shono KINOSHITA (1)(*)(c) Togo SHINONAGA (1) Yasuhiro OKAMOTO (1) Akira OKADA (1) (1) Okayama University	E07 (055)	Determination of Cutting Conditions for NC Program Generation by Reusing Machining Case Data based on Removal Volume Feature Isamu NISHIDA (1)(*)(c) Ryuta SATO (1) Keiichi SHIRASE (1) (1) Kobe University
15:20	A08 (106)	A Study on Data Mining Method for Measuring Sludge Concentration in Water-soluble Metal Working Fluid Yasuo KONDO (1)(*)(c) Yoshihisa HIGASHIMOTO (1) Satoshi SAKAMOTO (2) Kenji YAMAGUCHI (3) Tsuyoshi FUJITA (3) Mitsugu YAMAGUCHI (4) (1) Yamagata University (2) Yokohama National University (3) Yonago National College of Technology (4) Salesian Polytechnic	B08 (135)	Effects of Various Surface Treatments of Die Steels on Friction with Carbon Steels Kazuya HORIE (1)(*)(c) Makoto NANKO (1) Yoshihiro KUWABARA (2) Satoru NISHIWAKI (2) (1) Nagaoka University of Technology (2) Nagaoka Denshi Co., Ltd.	C08 (157)	Tool Allocation Method Considering Load Balancing and Optimization of Transportation Koji IWAMURA (1)(c) Kazuki ABURATA (1)(*) Nobuhiro SUGIMURA (1) (1) Osaka Prefecture University	D08 (046)	Dynamics of photo-excitation for the ablation of 4H-SiC substrate using femtosecond laser Keigo MATSUNAGA (1)(*) Terutake HAYASHI (1)(c) Syuhei KUROKAWA (1) Hideaki YOKOO (1) Noboru HASEGAWA (2) MasaharuNISHIKINO (2) Yoji MATSUKAWA (1) (1) Kyushu University, (2) National Institute for Quantum and Radiological Science and Technology	E08 (087)	Error estimation of machined surfaces in multi-axis machining with machine tool errors including tool self-intersecting motion based on high-accuracy tool swept volumes Wataru ARAI (1)(*)(c) Fumiki TANAKA (2) Masahiko ONOSATO (3) (1) Hokkaido University
15:40	A09 (101)	Geometric Analysis of Machining Error with Tool Orientation in Ball End Milling Hisanobu TERAI (1)(*)(c) Teruyuki ASAO (1) Koichi KIKKAWA (2) Yoshio MIZUGAKI (2) (1) National Institute of Technology, Kitakyushu (2) Kyushu Institute of Technology	B09 (121)	Optimization of surface finishing conditions for the tribological performance of an aluminum cast alloy Hatsuhiko USAMI (1)(*)(c) Shogo HAYAKAWA (1) Toshiki SATO (1)(2) Yasuyuki KANDA (2) Satoru NISHIO (2) (1) Meijo University (2) Kanefusa Corporation	C09 (070)	Heuristic Cargo Assignment for Delivery Workload Balancing Yutaro UOTANI (1)(*) Yoshiyuki KARUNO (1)(c) (1) Kyoto Institute of Technology	D09 (007)	Effects of Polarization Directionon Removal Characteristics of Silver Nanowire Transparent Conductive Film by fs Pulsed Laser Takahiro SHIMOSE (1)(*)(c) Yasuhiro OKAMOTO (1) Masafumi OSHITA (1) Norio NISHI (2) Togo SHINONAGA (1) Akira OKADA (1) (1) Okayama University (2) KATAOKACORPORATION	E09 (137)	A Study on Machining Feature Recognition to Achieve Multi-axis Machining of Complicated Shapes Yuki INOUE (1)(*)(c) Keiichi NAKAMOTO (1) (1) Tokyo University of Agriculture and Technology
16:00	A10 (060)	A revised instantaneous rigid force model for end-milling operation to eliminate predetermination of cutting coefficients Kazuki KANEKO (1)(*) Isamu NISHIDA (1)(c) Ryuta SATO (1) Keiichi SHIRASE (1) (1) Kobe University	B10 (036)	Effect of polyethylene glycol modification and microstructure on the wettability and friction characteristics Nobuyuki MORONUKI (1)(*)(c) Kisho MIYAMOTO (1) (1)Tokyo Metropolitan University	C10 (158)	Modeling and simulation for manufacturing system in society of declining birthrate and aging population 1st Report, Modeling for worker disease risk Hironori HIBINO (1)(c) Takahiro KURODA (1)(*) Kazuki ABE (1) Yoshihiko WATANABE (2) Kenji SHIMOMURA (2) (1) Tokyo University of Science (2) Yazaki Co. Ltd.	D10 (026)	Influence of Pulse Duration on Effective Energy on Material in Nanosecond Pulsed Laser Processing of Mild Steel Mizuna ITO (1)(*)(c) Togo SHINONAGA (1) Yasuhiro OKAMOTO (1) Akira OKADA (1) (1) Okayama University	E10 (142)	Development of high-speed automatic planning method of tool posture considering shape change of workpiece during machining process Kento WATANABE (1)(*)(c) Jun'ichi KANEKO (1) Kenichiro HORIO (1) (1) Saitama University
16:20	A11 (044)	Coupled Simulation between Machine Tool Behavior and Cutting Force using Voxel Simulator Shin NOGUCHI (1)(*) Ryuta SATO (1) (c) Isamu NISHIDA (1) Keiichi SHIRASE (1) (1) Kobe University	B11 (028)	Study on boiling promotion by minute unevenness - Boiling accelerated effect by the superheat of the dimple texture - Shinji NAKADEGUCHI (1)(*)(c) Yoshihiko MATSUO (1) Takanori YAZAWA (1) Satoru MOMOKI (1) Reiko YAMADA (1) Tatsuki OTSUBO (1) (1) Nagasaki University	C11 (118)	Greedy Heuristic Performance for Combinatorial Mixture Packaging of Two Types of Foods with Bounded Weights Yoshiyuki KARUNO (1)(c) Oki NAKAHAMA (1) (*) (1) Kyoto Institute of Technology	D11 (127)	Processing characteristics and texturing on surface of silicon nitride sphere using nanosecond pulse laser Yuki TSUKUDA (1)(*)(c) Minoru OTA (1) Kai EGASHIRA (1) Keishi YAMAGUCHI (1) Yuki NAGATOMI (1) Shunsuke KAKUTANI (1) (1) Kyoto Institute of Technology		
16:40	A12 (066)	Simulation-based Concurrent Identification of Milling Process and Mechanical Dynamics with Sensor-integrated Multi-inertial System Disturbance Observer Kazuki TAKAHEI (1)(2)(*) Tomoya FUJITA (1) Ryosuke IKEDA(1) Norikazu SUZUKI (2)(c) Shoya OHNO (2) Eiji SHAMOTO (2) (1) Mitsubishi Electric Corp. (2) Nagoya University	B12 (041)	Microfabrication of the Array of Convex Microstructures of Silicon Using the Combined Etching Process with Bilayer Etching Mask Sunao MURAKAMI (1)(*)(c) Kazuhiro ARAKI (1) Shusuke YAMAMOTO (1) Takahiro ITO (1) (1) Kyushu Institute of Technology						

15th November, 2017

Plenary session

8:20	Registration desk open
10:30	Plenary lecture 3　Prof. Kevin Chou
11:30	Lunch

Technical Session

	Room 1		Room 2		Room 3		Room 4		Room 5	
	OS12. M4 processes		**OS05. Advanced machining technologies**		**OS07. Ultra-precision machining**		**OS08. Grinding technology, OS09. New developments in abrasive finishing**		**OS19. Nano/Micro machining, OS23. Advanced manufacturing technologies**	
	Keita Shimada (Tohoku University), Noriyuki Unno (Tokyo University of Science, Yamaguchi)		**Hiroyuki Sasahara (Tokyo University of Agriculture and Technology) Erween Abd Rahim (Universiti Tun Hussein Onn Malaysia)**		**Hirofumi Suzuki （Chubu University), Jiwang Yan (Keio University)**		**PANART KHAJORNRUNGRUANG (Kyushu Institute of Technology)**		**Keiji OGAWA (Ryukoku University) Naohiko SUGITA (The University of Tokyo)**	
12:40			B13 (008)	Cutting Performance of Boron-doped Diamond Coated Tools in Drilling of CFRP Alexander SOLDATOV (1)(*)(c) Akira OKADA (1) Kensuke UEMURA (2) Hitoshi OGAWA (3) (1) Okayama University (2) ITAC Ltd. (3) Tokushima Prefectural Industrial Technology Center	C13 (063)	Ductile mode cutting of optical glass without silicon oxide composition Jun ISHIZUKA (1)(*)(c) Keisuke NAGASAWA (2) Masayuki MIKAMI (2) Jiwang YAN (1) (1) Keio University (2) COSINA CO., LTD.				
13:00			B14 (146)	Study on Chip Packing Load in Tapping of AISI304 Stainless Steel using a Spiral Tap Yuto KOJIMA (1)(*)(c) Ryutaro TANAKA (1) Katsuhiko SEKIYA (1) Keiji YAMADA (1) (1) Hiroshima University	C14 (091)	Influence of Crystal Anisotropy on Ultra-precision Cutting of Single Crystal Copper (111) Surface Shinnosuke KAWAI (1)(*)(c) Naomichi FURUSHIRO (1) Daisuke HIROOKA (1) Tomomi YAMAGUCHI (1) (1) Kansai University	D14 (149)	A study on the tribochemical polishing of GaN substrate Akitaka IWAKIRI (1)(*)(c) Akihisa KUBOTA (1) (1) Kumamoto University	E14 (123)	Fabrication of Nanoscale Micropins Using Monocrystalline Diamond Turning Tools Eisuke KOYA (1)(*) Kenichi KURIYAMA (1) Kai EGASHIRA (1)(c) Keishi YAMAGUCHI (1) Minoru OTA (1) (1) Kyoto Institute of Technology
13:20	A15 (005)	Nano-Level Manufacturing by Multifunction Cavitation Kumiko TANAKA (1)(*)(c) Masataka IJIRI (1) Daisuke NAKAGAWA (1) Toshihiko YOSHIMURA (1) (1) Tokyo University of Science	B15 (056)	Influence of Built-up layer on the wear of uncoated cemented carbide tool during cutting of Inconel 718 SONG XIAOQI (1)(*)(c) Yukio TAKAHASHI (1) Tohru IHARA (1) (1) Chuo University	C15 (092)	Study on Factors of Tool Wear in Diamond Turning of Carburized Steel using Decision Trees Shin INOUE (1)(*)(c) Naomichi FURUSHIRO (1) Daisuke HIROOKA (1) Tomomi YAMAGUCHI (1) Shigetaka MATSUDA (2) Yasuhiro IWASA (2) Shuntaro TERAUCHI (2) (1) Kansai University (2) Osaka Yakin Kogyo Co., Ltd.	D15 (173)	Analytical on mixed colloidal silica particle in slurry of sapphire Chemical Mechanical Polishing Natthaphon BUN-ATHUEK (1)(*)(c) Yutaka YOSHIMOTO (1) Koya SAKAI (1) Panart KHAJORNRUNGRUANG (1) Keisuke SUZUKI (1) (1) Kyushu Institute of Technology	E15 (152)	Fabrication of Microlens Array Moldsby Indentation Method Using Sintered Porous Metal Hideo TAKINO (1)(*)(c) Ryosuke UCHIKI (1) (1) Chiba Institute of Technology
13:40	A16 (022)	Thermal roll-to-roll nanoimprinting using a replica mold without release agent Noriyuki UNNO (1)(*)(c) Shohei KAKIMOTO (2) Tapio Mäkelä (3) Shin HIWASA (3) Jun TANIGUCHI (4) (1) Tokyo University of Science, Yamaguchi (2) Tokyo University of Science (3) VTT Printed and Hybrid Functionalities (4) Autex Co., Ltd.	B16 (086)	Effects of Gripping Force of Hydraulic Three-Finger Power Chuck on Modal Stiffness and Tool Life Kazunori FUJISE (1)(*)(c) Keita MIZUNO (2) Fumihiro ITOIGAWA (2) Hironari ISHIHARA (1) Takashi NORIHISA (1) Yosuke ICHIGI (1) (1) OKUMA Corporation (2) Nagoya Institute of Technology	C16 (084)	Ultraprecision cutting of silicon carbide using micro milling tool of single crystalline diamond Hirofumi SUZUKI (1)(*)(c) Mutsumi OKADA (1) Wataru ASAI (1) Yusuke ITOH (2) Hifumi FUJII (2) (1) Chubu University (2) NS Tool Co. Ltd.	D16 (124)	Investigation of Friction Coefficient between Wafer and Carrier During Double-sided Lapping Yohei HASHIMOTO (1)(c) Tomoya SANO (1)(*) Tatsuaki FURUMOTO (1) Tomohiro KOYANO (1) Masafumi TAKESUE (4) Kazuo SAITO (2) Keisuke SASASHIMA (2) Akira HOSOKAWA (1) (1) Kanazawa University (2) Bando Chemical Industries, Ltd.	E16 (002)	Efficient Fabrication Process of Metallic Nanostructure for Optical Functional Surfaces Hao SHEN (1)(*)(c) Motoki TERANO (2) Masahiko YOSHINO (3) (1) Tokyo Institute of Technology (2) Okayama University of Science (3) Tokyo Institute of Technology
14:00	A17 (057)	Improvement of transfer durability of a pillar-shaped release-agent-free replica mold in ultraviolet nanoimprint lithography Gen NAKAGAWA (1) Junpei TSUCHIYA (1)(*)(c) Shin HIWASA (2) Jun TANIGUCHI (1) (1) Tokyo University of Science (2) Autex Co., Ltd.	B17 (116)	Chip Combustion in High-speed Dry Cutting of Titanium Alloy Shohei TAKEMOTO (1)(*)(c) Masahiko SATO (1) Takashi MATSUNO (1) Kanae YAMAMOTO (1) (1) Tottori University	C17 (119)	Consideration on Polishing for Removal of Mid-spatial Frequency Waviness Caused by Ultraprecision Shaper Cutting Takuya HOSOBATA (1)(*)(c) Masahiro TAKEDA (1) Toshihide KAWAI (1) Shin-ya MORITA (2) Yutaka YAMAGATA (1) (1) RIKEN (2) Tokyo Denki University	D17 (147)	Analytical Investigation of Workpiece Attitude during Double-Sided Polishing Yohei HASHIMOTO (1)(*)(c) Tomoya SANO (1) Tatsuaki FURUMOTO (1) Tomohiro KOYANO (1) Akira HOSOKAWA (1) (1) Kanazawa University	E17 (052)	A study on crystalline microstructure control for development of functional surfaces Zichao LUO (1)(*)(c) Masahiko YOSHINO (1) Motoki TERANO (2) Akinori YAMANAKA (3) (1) Tokyo Institute of Technology (2) Okayama University of Science (3) Tokyo University of Agriculture and Technology
14:20	A18 (105)	Effects of stamp properties on transfer-print and its application to fabricate a micro-tactile sensor Taira KATAYAMA (1)(*)(c) Kazuto NAGAHASHI (1) Atsushi KAWAHATA (1) Arata KANEKO (1) (1) Tokyo Metropolitan University	B18 (160)	Principal Factors Control Tool Wear in High-speed Cutting of Titanium Alloy Sho NEGITA (1)(*)(c) Fumihiro ITOIGAWA (1) Shinya HAYAKAWA (1) Takashi NAKAMURA (1) (1) Nagoya Institute of Technology	C18 (165)	Transmission Gratings and Immersion Gratings for Instruments of Subaru Telescope and TMT N. EBIZUKA (1)(*)(c) T. OKAMOTO (1) M. TAKEDA (1) T. HOSOBATA (1) Y. YAMAGATA (1) M. SASAKI (2) M. UOMOTO (3) T. SHIMATSU (3) S. SATO (4) N. HASHIMOTO (4) I. TANAKA (5) T. HATTORI (5) S. OZAKI (6) W. AOKI (6) (1) RIKEN (2) Toyota Technological Institute (3) Tohoku University (4) CITIZN WATCH Co. Ltd. (5) National Astronomical Observatory of Japan (6) National Astronomical	D18 (093)	Development of a Technology for Cutting CFRP Boards Using Electroplated Diamond Wire Tools Yu ZHANG (1)(*)(c) Yasuhiro TANI (2) (1) Ritsumeikan University	E18 (095)	Estimation of Wedge Indentation Resistance and Plane Compressive Characteristics of Acrylic PSA Satoshi KANEKO (1)(*)(c) Shigeru NAGASAWA (1) (1)　Nagaoka University of Technology
14:40	Coffee break									

	OS12. M4 processes		OS05. Advanced machining technologies		OS17. Rapid prototyping technologies and additive manufacturing		OS08. Grinding technology, OS09. New developments in abrasive finishing		OS19. Nano/Micro machining, OS23. Advanced manufacturing technologies	
	Noriyuki Unno (Tokyo University of Science, Yamaguchi), Keita Shimada (Tohoku University)		Katsuhiko Sekiya (Hiroshima University)		Tatsuaki FURUMOTO（Kanazawa university)		Takazo Yamada (Nihon University), Kazuhito Ohashi (Okayama University)		Masahiko YOSHINO (Tokyo Institute of Technology)	
15:00	A19 (071)	The development of hybrid-feed system and technology of CFRP machining Daisuke TAKENOUCHI (1)(*)(c) Hirotaka OJIMA (1) Libo ZHOU (1) Teppei ONUKI (1) and Jun SHIMIZU (1) (1) Ibaraki University	B19 (053)	Hard Turning of Difficult-to-machine Materials with Actively Driven Rotary Tool (ADRT) —Proposition of reciprocating turning based on the fundamental cutting characteristics — Akira HOSOKAWA (1)(c) Haruki YOSHIMATSU (1)(*) Tomohiro KOYANO (1) Tatsuaki FURUMOTO (1) Yohei HASHIMOTO (1) (1) Kanazawa University	C19 (016)	Development of the shell structure building simulator with two-dimensional bead model for wire and arc-based additive manufacturing Takeyuki ABE (1)(*)(c) Hiroyuki SASAHARA (2) (1) University of Yamanashi (2) Tokyo University of Agriculture and Technology	D19 (143)	Development of intelligent cylindrical grinding system considering thermal deformation of workpiece Takashi Onishi (1)(*)(c) Moriaki Sakakura (2) Takuo Okanoue (1) Yasuhiro Fujiyama (1) Kazuhito Ohashi (1) (1) Okayama University (2) Daido University, Japan	E19 (051)	Influence of Warm Oxide Layer on Wettability and Contact Angle for Heat Transport Devices A.TAKEMURA (1)(*)(c) K.YUKI (2) A.SADAYUKI (1) (1) National Institute of Technology, Tsuyama College (2) Tokyo University of Science, Yamaguchi
15:20	A20 (112)	Effect of Three-Dimensional Ultrasonic Assistance on Milling Process Keita SHIMADA (1)(*)(c) Ryu IWADATE (2) Masayoshi MIZUTANI (1) Tsunemoto KURIYAGAWA (1) (1) Tohoku University (2) FANUC Corporation	B20 (162)	Curve Generator Machining of Co-Cr Alloys for Fabrication of Hyper-hemisphere Shoichi TAMURA (1)(*) Yuichi NAKANO (2) Atsushi EZURA (2) Takashi MATSUMURA (1)(c) (1) Tokyo Denki University (2) Industrial Technology Center of Tochigi Prefecture	C20 (037)	Precise Fabrication of Wall Structure onto Thin Plate End with Interlayer Temperature Monitoring on Wire and Arc-based Additive Manufacturing Takenao TSURUMAKI (1)(*)(c) Hiroyuki CHIBAHARA (1) Shinji TSUKAMOTO (2) Hiroyuki SASAHARA (1) (1) Tokyo University of Agriculture and Technology (2) Mitsubishi Electric Co.,Ltd.	D20 (009)	Development of the Grinding Wheel Decision Support System Using Data Mining Method Hiroyuki KODAMA (1)(*)(c) Koichi OKUDA (2) Kazuhito OHASHI (1) (1) Okayama University (2) University of Hyogo	E20 (077)	Fabrication of a two-dimensional diffraction grating by a two-axis Lloyd's mirror interferometer Kazuki MANO (1)(*)(c) Ryo AIHARA (1) Yuki SHIMIZU (1) Yuan-Liu CHEN (1) Wei GAO (1) (1) Tohoku University
15:40	A21 (166)	An in-situ high-cylindricity micro-hole finishing technique Shun-Tong CHEN (1)(*)(c) Ming-Chieh YEH (2) (1) National Taiwan Normal University	B21 (021)	Construction of laser-assisted crackles machining for polybenzimidazole: Optimization of laser irradiation for orthogonal cutting Naohiro SUZUKI (1)(*)(c) Hideharu KATO (1) Takuya TANAKA (2) (1) Kanazawa Institute of Technology (2) TAKAMAZ Machinery Co., Ltd.	C21 (039)	Non-contact Temperature Measurement of Deposited Objects Manufactured by Directed Energy Deposition Akihiro MARUHASHI (1) (*)(c) Daisuke KONO (1) Iwao YAMAJI (1) Yohei ODA (2) Atsushi MATSUBARA (1) (1) Kyoto University (2) DMG MORI Co., Ltd.	D21 (017)	Proposal of detecting and evaluating method of cutting edge distributions in grinding wheel surfaces Kohichi MIURA (1)(*)(c) Takazo YAMADA (1) Hwa-Soo LEE (1) (1) Nihon University	E21 (113)	Polarization ray-tracing model for orthogonal two-axis Lloyd's mirror interference lithography Xiuguo CHEN (1)(*)(c) Zongwei REN (1) Yuanliu CHEN (1) Yuki SHIMIZU (1) Wei GAO (1) (1) Tohoku University
16:00			B22 (170)	A Simulation Study on the Performance of Laser Assisted Micro Milling of Ti6Al4V Zazuli MOHID (1)(*)(c) Erween Abd.RAHIM (2) (1) Universiti Tun Hussein Onn Malaysia	C22 (058)	Minimization of Thermal Distortion of Wire and Arc-based Additive Manufacturing on the Shaft Tohru YOSHIOKA (1)(*)(c) Hiroyuki SASAHARA (1) (1) Tokyo University of Agriculture and Technology	D22 (129)	Influence of grinding conditions on machining characteristics of PCD in high-speed constant-pressure grinding Atsushi NAKAMURA (1)(*)(c) Minoru OTA (1) Kai EGASHIRA (1) Keishi YAMAGUCHI (1) Hirotaka MIWA (2) Nobuhide NAKAMURA (3) (1) Kyoto Institute of Technology (2) NISSAN MOTOR Co., Ltd. (3) A.L.M.T. Co.	E22 (107)	Precise and highly reliable 3-dimentional position jointing by double-sided adhesive bonding Hiroaki FURUICHI (1)(*)(c) Masayuki OKAMURA (1) (1) Hitachi, Ltd.
16:20					C23 (100)	Thermophysical properties of SKD61 powder for additive manufacturing -Measurement of thermal conductivity and laser absorption- Yuya TANABE (1)(*)(c) Tatsuaki FURUMOTO (1) Yohei HASHIMOTO (1) Tomohiro KOYANO (1) Akira HOSOKAWA (1) (1) Kanazawa University				
18:00	*Banquet*									

16th November, 2017

8:30	Registration desk open

Technical Session

	Room 1		Room 2		Room 3		Room 4		Room 5	
	OS01. Advanced machine tool, OS04. Mechatronics and control technology		**OS05. Advanced machining technologies**		**OS16. Monitoring and control of machining process**		**OS22. Machine and mechanical elements OS20. Non-traditional machining**		**OS14. Nano/Micro measurement and intelligent instruments**	
	Keiichi Shirase (Kobe University) Daisuke Kono (Kyoto University)		**Hideharu Kato (Kanazawa Institute of Technology) Shigehiko Sakamoto (Kumamoto Universisty)**		**Yasuhiro KAKINUMA (Keio University) Alan HASE (Saitama Institute of Technology)**		**Hayato YOSHIOKA(Tokyo Institute of Technology) Keita Shimada (Tohoku University)**		**Yasuhiro Mizutani (OSAKA University)**	
9:40	A24 (128) Development of Globe-on-demand System for Visually Impaired (Concept of the System) Yukitoshi IMAMOTO (1)(*)(c) Naoki ASAKAWA (2) Keigo TAKASUGI (3) (1) Kanazawa University		B24 (169) Evaluation of Machining Performance of Palm Olein Based TMP Esters Containing Additives as Bio-based Metalworking Fluids E. A. RAHIM (1)(*)(c) S. A. S. AMIRIL (1)(2) Z. MOHID (1) S. SYAHRULLAIL (3) K. KAMDANI (1) (1) Universiti Tun Hussein Onn Malaysia (2) Universiti Malaysia Pahang (3) Universiti Teknologi Malaysia		C24 (140) Suppression of Regenerative Chatter in High Speed End-Milling Process using Adaptive Control of Spindle Speed Eiji KONDO (1)(*)(c) Nguyen Tuan KHA (2) Daisuke TABUCHI (1) (1) Kagoshima University (2) ULVAC KYUSHU Corp.		D24 (074) Influence of the Number of Planet Gears on Planetary Meshing Noise Deepak SAH (1)(*)(c) Masao NAKAGAWA (1) Dai NISHIDA (1) Toshiki HIROGAKI (1) Eiichi AOYAMA (1) (1) Doshisha University		
10:00	A25 (054) Basic Study on Development of Innovative CNC for Improving Machining Quality Based on Data Sharing Masako SUDO (1)(*)(c) Toru MIZUNO (1) Hideki AOYAMA (2) (1) FANUC Corporation (2) Keio University		B25 (151) A Study on Finished Surface Roughness of a Nitriding Spheroidal Graphite Cast Iron Tatsurou HASEGAWA (1)(2)(*)(c) Hirohisa NARITA (1) (1) MEIJO University (2) NAGOYA University		C25 (031) Vibration Analysis in Milling of Thin-Walled Workpieces Using Hilbert–Huang Transform Agus SUSANTO (1)(*)(c) Keiji YAMADA (1) Kyosuke MANI (1) Ryutaro TANAKA (1) Katsuhiko SEKIYA (1) (1) Hiroshima University		D25 (075) Fundamental study on thermal stability of micro milling spindle supported by water hydrostatic bearing under non-spindle rotation Tsubasa YAGUCHI (1)(*)(c) Akio HAYASHI (2) Yohichi NAKAO (1) (1) Kanagawa University (2) Kanazawa Institute of Technology	E25 (027)	Detection Principle and Verification of Non-contact Displacement Meter with Pico-meter Resolution Hideaki TAMIYA (1)(*)(c) Kayoko TANIGUCHI (1) Kazuo YAMAZAKI (2) Hideki AOYAMA (3) (1) Magnescale Co., Ltd. (2) University of California at Davis (3) Keio University
10:20	A26 (033) Development of Optimized Tool Path Generation Method for to Reduce Energy Consumption of 5-Axis Machine Tool Yoshiki OKAMI (1)(*)(c) Yoshitaka MORIMOTO (1) Keigo TAKASUGI (2) Akio HAYASHI (1) (1) Kanazawa Institute of Technology (2) Kanazawa University		B26 (072) Cutting characteristics of duplex stainless cast steel X2CrNiMoN25-7-3 Masahiro HAGINO (1)(*)(c) Akihiro TAKEMURA (1) Tsuyoshi FUJITA (2) Hiroshi USUKI (3) Akihiko IKUTA (4) (1) National Institute of Technology, Tsuyama College (2) National Institute of Technology, Yonago College (3) Shimane University (4) Kinki University		C26 (032) Improvement of Transfer Technology for Flexible Bands Masahiro YAMASHITA (1)(*)(c) Yoshitaka MORIMOTO (1) Katsuhiro NAKAGAKI (2) Akio HAYASHI (1) (1) Kanazawa Institute of Technology (2) YKK CORPORATION		D26 (131) Evaluation of relative vertical error motions of a bench center by using an optical micrometer Zengyuan NIU (1)(*)(c) Yuan-Liu CHEN (1) Yuki SHIMIZU (1) Wei GAO (1) (1) Tohoku University	E26 (078)	Evaluation of grating periods by using pulsed laser source Kentaro UEHARA (1)(*)(c) Yuki SHIMIZU (1) Yuan-Liu CHEN (1) Wei GAO (1) (1) Tohoku University
10:40	A27 (114) Study of tool path generation system based on consideration of energy consumption for motion of machine tool Akio HAYASHI (1)(*)(c) Zen KIMURA (2) Yohichi NAKAO (2) Yoshitaka MORIMOTO (1) (1) Kanazawa institute of technology (2) Kanagawa University		B27 (144) Experimental Examination of Cutting Performance for Laminated Sheet using Stereolithography Process Shigehiko SAKAMOTO (1) Keita ARISHIMA (1)(*)(c) (1) Kumamoto University		C27 (040) Development of Small Displacement Device of End-mill at Cutting Point using Electro-magnetic Force Mitsunari ODA (1)(*)(c) Takashi TORIHARA (1) Eiji KONDO (1) (1) Kagoshima University		D27 (068) Capturing of Stress Distribution of Workpiece Under Ultrasonically Assisted Machining Condition Hiromi ISOBE (1)(*)(c) Keisuke HARA (2) (1) Nagaoka University of Technology (2) National Institute of Technology, Ichinoseki college	E27 (085)	Surface form measurement of a small roll workpiece Toshiki SAITO (1)(*)(c) Yuki MACHIDA (1) Yuki SHIMIZU (1) Yuan-Liu CHEN (1) Wei GAO (1) (1) Tohoku University
11:00	A28 (038) Compensation of five-axis machines: Practical approaches and limits of software based compensation Matthias REUSS (1)(*)(c) Georg ULBRICH (1) (1) ISG Industrielle Steuerungstechnik GmbH		B28 (015) Tool Approach Mark Elimination Method for Ball End-milling Operation Tadahiro NISHIGUCHI (1)(*)(c) Ryuta SATO (2) Keiichi SHIRASE (2) (1) Nagano Prefectural Institute of Technology (2) Kobe University		C28 (025) Experimental Investigation on Growth Mechanism of Machining Error Caused by Vibrations of End Mill Kenji SHIMANA (1)(*)(c) Eiji KONDO (2) Takumi CHIFU (3) Shinichi YOSHIMITSU (1) Yuya KOBARU (1) (1) National Institute of Technology, Kagoshima College (2) Kagoshima University (3) Kotobuki Paper Co. Ltd.		D28 (080) Ultrasonic mirror finish machining for acrylic resin products Keisuke HARA (1)(*)(c) Shuntaro INOUE (1) Hiromi ISOBE(2) (1) National Institute of Technology, Ichinoseki College (2) Nagaoka University of Technology	E28 (163)	A novel compensation method of zero-adjustment error in flatness measurement using serial four-point method Hiroki SHIMIZU (1)(*)(c) Ryousuke YAMASHITA (1) Takuya HASHIGUCHI (1) Tasuku MIYATA (1) (1) Kyushu Institute of Technology
11:20	A29 (061) Preload distribution on machine tool mounting structure by leveling work during installation Kotaro MORI (1)(2)(*)(c) Daisuke KONO (1) Atsushi MATSUBARA (1) Hidenori SARAIE (3) (1) Kyoto University (2) Japan Society for the Promotion of Science (3) DMG MORI CO., LTD.		B29 (003) Try for Latent-image Machining Toru YAMAMOTO (1)(*)(c) Kai ANDOU(1) (1) National Institute of Technology, Oita College		C29 (159) Effect of micro-structure of medium density fiberboard on cutting force variation with cutting speed Akinobu NAKAMURA (1)(*)(c) Fumihiro ITOIGAWA (1) Takashi NAKAMURA (1) (1) Nagoya Institute of Technology		D29 (161) Development of mat-surface fabrication-technology utilizing fixed-abrasive tool Kiyoshi Yanagihara (1)(*)(c) Ryoji KITA (1) (1) National Institute of Technology, Ariake College	E29 (108)	High-Precision Measurement of Dielectric Microsphere Diameter Using Whispering Gallery Mode Resonance Bohuai CHU (1)(*) Kohei HAYASHI (1) Zheng ZHAO (1) Masaki MICHIHATA (1)(c) Kiyoshi TAKAMASU (1) Satoru TAKAHASHI (1) (1) The University of Tokyo
11:40	Lunch									

	OS01. Advanced machine tool, OS04. Mechatronics and control technology		OS05. Advanced machining technologies		OS16. Monitoring and control of machining process		OS10. Electrical machining		OS14. Nano/Micro measurement and intelligent instruments	
	Yoshitaka Morimoto (Kanazawa Institute of Technology) Ryuta Sato (Kobe Univerisity)		Ryutaro Tanaka (Hiroshima University)		Eiji KONDO (Kagoshima University) Alan HASE (Saitama Institute of Technology)		Tohru Ishida (Tokushima University), Kai Egashira (Kyoto Institute of Technology)		Hiroki Shimizu (Kyushu Institute of Technology) Terutake Hayashi (Kyushu University)	
12:40	A30 (006)	Comparison of Thermal Deformation of Steel and CFRP Shafts for Machine Tool Spindles Ryo KONDO (1)(*)(c) Daisuke KONO (1) Iwao YAMAJI (1) Atsushi MATSUBARA (1) (1) Kyoto University	B30 (164)	Coating Failure Property of CVD Diamond Coated Tool in Machining of Sintered WC-Co Erina SAHASHI (1)(*)(c) Fumihiro ITOIGAWA (1) Tomoya MINAMI (1) Takashi NAKAMURA (1) (1) Nagoya Institute of Technology	C30 (019)	Phase shift monitoring based on mode-decoupled disturbance observer for chatter detection Shuntaro YAMATO (1)(*)(c) Yuki YAMADA (1) Takamichi ITO (2) Hirohiko MATSUZAKI (2) Yasuhiro KAKINUMA (1) (1) Keio University (2) Toshiba Machine Co., Ltd.	D30 (029)	Examination of Micro EDM Deposition Mechanism using Thin Cu-W Electrode Masato ISHII (1)(*) Itaru TAKAHAMA (1) Takeyuki YAMAMOTO (1)(c) Jun SHIMIZU (1) Libo ZHOU (1) Teppei ONUKI (1) Hirotaka OJIMA (1) (1) Ibaraki University	E30 (004)	Analysis of variance in optical inspections of wafer thickness Teppei ONUKI (1)(*)(c) Hirotaka OJIMA (1) Jun SHIMIZU (1) Libo ZHOU (1) (1) Ibaraki University
13:00	A31 (090)	Development of a Contactless Biaxial Magnetic Loader for Evaluation of Spindle Dynamics Shunsuke GOTO (1)(*)(c) Atsushi MATSUBARA (1) Iwao YAMAJI (1) Shinji ISHII (2) (1) Kyoto University (2) AI-Creatures Limited Liability Company	B31 (171)	Experimental Evaluation of Carbon Dioxide Gas as a Cryogenic Cooling in Machining Process Erween Abd RAHIM (1)(*)(c) Mohd Noor JAAFAR (1) Zazuli MOHID (1) (1) Universiti Tun Hussein Onn Malaysia	C31 (153)	Approach detection of diamond cutting tool by using photoelectric effect Hayato YOSHIOKA (1)(*)(c) Masahiro AKIYAMA (1) Hidenori SHINNO (1) (1) Tokyo Institute of Technology	D31 (024)	Formation of Chromium Carbide on Carbon Tool Steel by EDM in Powder Mixed Working Fluid Ruixiang WANG (1)(*)(c) Yuta IIDA (1) Ryoji KITADA (2) Akira OKADA (1) (1) Okayama University (2) Sojo University	E31 (011)	Investigation of Strain Hardening in Aluminum Alloy Sheared Sheet Based on Micro Hardness Measurement and Finite Element Analysis Pusit MITSOMWANG (1)(*)(c) Rattana BORRISUTTHEKUL (1) Usanee KITKAMTHORN (1) Shigeru NAGASAWA (2) (1) Suranaree University of Technology (2) Nagaoka University of Technology
13:20	A32 (042)	Vibration Suppression Method by Compensation Torque for High Speed Tracking Motions Hideaki HAYASHI (1)(*) Ryuta SATO (1)(c) Keiichi SHIRASE (1) (1) Kobe University	B32 (050)	Wear Properties of Diamond-Coated Ball End Tools in Milling of Tungsten carbide Soushi SAKAMOTO (1)(*)(c) Haruhiko SUWA (1) Toshimichi MORIWAKI (1) (1) Setsunan University	C32 (156)	Study on Monitoring and Control of Machining Process by Acoustic Emission Technique Alan HASE (1)(*)(c) (1) Saitama Institute of Technology	D32 (023)	Hole Fabrication inside a Hole by Means of Electrical Discharge Machining -Expansion of Machinable Hole Diameter- Tohru ISHIDA (1)(*)(c) Shohei TAHARA (2) Shikitaro OGAWA (1) Akira MIZOBUCHI (1) Yoshimi TAKEUCHI (2) (1) Tokushima University (2) Chubu University	E32 (094)	Fabrication of layered nanostructure in large area by 3D lithography using Talbot effect Yasuhiro MIZUTANI (1)(*)(c) Mitsuru SHINOZAKI (1) Yasuhiro TAKAYA (1) (1) Osaka University
13:40	A33 (043)	Influence of Torsional Damping and Lead of Ball-screw onto Vibration Characteristics of Feed Drive System Atsushi NAGAO (1)(*) Ryuta SATO (1) (c) Keiichi SHIRASE (1) Takeshi HASHIMOTO (2) Taichi SASAKI (2) (1) Kobe University (2) Miki Pulley Co. Ltd.	B33 (083)	Effect of Super Elasticity on Cutting Phenomena of NiTi Alloys Hao YANG (1)(*)(c) Kazuki SONODA (1) Katsuhiko SAKAI (1) Hiroo SHIZUKA (1) Tetsuo NAGARE (2) (1) Shizuoka University (2) National Institute of Technology, Numazu College	C33 (096)	Contact Detection and Monitoring of Cutting State by Acoustic Emission Technique in Ultra-Precision Turning Toshihiko KOGA (1)(2)(*)(c) Alan HASE (2) Keiichi NINOMIYA (3) Masaki WADA (1) Katsuyuki KONISHI (2) (1) Polytechnic University (2) Saitama Institute of Technolog	D33 (089)	Expansion of Smoothed Area on Hole Bottom Surface by Setting Magnetic Block in Large-area Electron Beam Irradiation Togo SHINONAGA (1)(*)(c) Mitsuhiro KIMURA (1) Akira OKADA (1) (1) Okayama University	E33 (076)	Ultra-precision angle sensor with a mode-locked laser source Shuhei MADOKORO (1)(*)(c) Yuki SHIMIZU (1) Yuan-Liu CHEN (1) Wei GAO (1) (1) Tohoku University
14:00	A34 (030)	Influence of Preload and Retainer of Linear Ball Guides on Feed Drive System in Microscopic Motions Tomofumi OHASHI (1)(*)(c) Hitoshi SHIBATA (1) Shigeru FUTAMI (1) Hiroyuki KISHI (1) Ryuta SATO (2) (1) THK CO., LTD. (2) Kobe University			C34 (111)	Proposal of abnormally detection method using cutting sound Masaya YOSHIDA (1)(*)(c) Hirohisa NARITA (1) (1) Meijo University	D34 (148)	Analysis of Electrochemical Machining Process with Ultrashort Pulses Considering Stray Inductance of Pulse Power Supply Tomohiro KOYANO (1)(*)(c) Akira HOSOKAWA (1) Tatsuaki FURUMOTO (1) Yohei HASHIMOTO (1) (1) Kanazawa University	E34 (079)	A confocal microscope with a mode-locked laser source Yuki SHIMIZU (1)(*)(c) Taku NAKAMURA (1) Yuan-Liu CHEN (1) Wei GAO (1) (1) Tohoku University
14:20	A35 (073)	Design and Verification of an XYZ Three-axis Micro Stage Keisuke ADACHI (1)(*)(c) Takuma SUGAWARA (1) Yuki SHIMIZU (1) Yuan-Liu CHEN (1) Wei GAO (1) Eiji NIWA (2) Yoshihiro SASAKI (3) (1) Tohoku University (2) Research Institute for Electromagnetic Materials			C35 (117)	The Influence of the Constitution of the Micro Sheathed Thermocouple in Tool Bits on the Measured Temperature Daisuke TABUCHI (1)(*)(c) Tomohiro SAKAKI (1) Eiji KONDO (1) (1) Kagoshima University	D35 (122)	Drilling of Microholes by Electrochemical Machining Using Ultrashort Voltage Pulses Yu HIRAI (1)(*) Akio HAYASHI (1) Kai EGASHIRA (1) (c) Keishi YAMAGUCHI (1) Minoru OTA (1) (1) Kyoto Institute of Technology	E35 (049)	Characteristic analysis of phase contrast microscopy in liquid probe type surface inspection method Kazuki TACHIBANA (1)(*) Masaki MICHIHATA (2) Kiyoshi TAKAMASU (1) Satoru TAKAHASHI (2)(c) (1) The University of Tokyo