

Special Issue

Aircraft and Manufacturing Technology

Review

■ New Materials and Manufacturing Technologies Required for Next-Generation Aircraft

Hiroshi IZUI937

Lecture

■ Manufacturing Technology of Aircraft Airframe Structure

Masanori NAKAJIMA941

■ Abrasive-Waterjet Machining of Composites

Yasuo BABA945

■ High Efficiency Cutting of Structure Parts for Air Plane

Masaaki MIYAZAKI949

■ Cutting Tool for Aircraft and Applications

Ryoei HASEGAWA953

■ My Experience in Precision Engineering

Hiroyuki YOSHIKAWA962

■ Gravure & Interview

IHI Corporation Soma No. 1 Works, Soma No. 2 Works933

Naoshi MATSUMOTO and Mikio SAKURAI

Interview : Akinori SAITO

■ Introduction to Precision Engineering

Nanoimprint lithography is profound!958

Takushi SAITO

■ Introduction of Laboratories

Polymer Precision Processing Laboratory/Ito Laboratory, Graduate School of Science and Engineering, Yamagata University963

Advanced Robotics Laboratory, Department of Precision Mechanics, Faculty of Science and Engineering, Chuo University965

.....965

● From the Lecture Committee告 8-1

● Editor's Note告 8-42

Paper

- **EUV (Extreme Ultraviolet) Light Source by Laser Produced Plasma Using Tin Through-hole Targets** ————— 967
—EUV Emission and Ablation Process in Conical and Cylindrical Through-holes—
Motohiro NAKANO, Yasuyuki SANDA, Haruyuki INOUE, Yasushi OSHIKANE and Toshihiko KATAOKA
- **Development of Quality Control System for Laser Spot Welding System of Stainless Steel Sheets** ————— 973
Naoki KAWADA, Shinich SHIRAISHI, Masashi OIKAWA, Yousuke OTSUKA, Syunichi IWAKI and Hiroyuki KUMEHARA
- **Cutting Characteristics of Coated Carbide Tools in Hardmilling** ————— 979
—Influence of Coating Film and Base Material of Coated Carbide Tool—
Masato OKADA, Akira HOSOKAWA, Ryutaro TANAKA and Takashi UEDA
- **Study on Regenerative Chatter Vibration in Ball End Milling of Flexible Workpieces** ————— 984
—Construction of Analytical Model with Consideration of Tool Inclination around Cutting Feed Direction—
Koichi AKAZAWA and Eiji SHAMOTO
- **Study on Rotational Accuracy of a Spindle supported by Aerostatic Bearings** ————— 990
—Effect of the Squareness Error of a Thrust Collar—
Hiroya ANDO, Shigeka YOSHIMOTO, Masaaki MIYATAKE and Tsuyoshi OGAWA
- **Production of Micro Polycrystalline Diamond Drill by Wire-EDM and Drilling to Quartz Glass** ————— 995
Hiroshi MIZUE, Osamu OHNISHI, Hiromichi ONIKURA, Ryoma TORIGOE and Yukihito KIDO
- **A Study on Control Structure for Slide Screw Stages** ————— 1000
—Mechanical Nonlinearity and Control Optimization—
Susumu MAKINOUCI, Hideaki SAKAMOTO and Shinji WAKUI
- **Calibration of Camera and Projector Systems based on Projective Reconstruction** ————— 1005
Tsuyoshi SHIMIZU, Yasutake HARAMIISHI, Nobuyuki FURUYA, Shigeki TOYAMA and Makoto OBI
- **Path Planning of Industrial Robot Considering Mobility for Cutting Operation** ————— 1010
Ichiro AOYAMA and Koichi MORISHIGE
- **An Adjustable Robot Arm Mechanism with the Muscle Coordinate System Performing Contact Tasks** ————— 1015
Tomohiko FUJIKAWA, Toru OSHIMA, Noboru MOMOSE, Kiyoshi TORIUMI and Minayori KUMAMOTO
- **Development of the Coaxial Optical System for Ultra Compact High Performance Angular Sensor** ————— 1019
Takeshi MUSHA, Hajime NAKAJIMA, Toshiro NAKASHIMA, Takashi OKAMURO, Yoichi OHMURA and Toshikazu SATONE
- **A Method for Constructing Surfaces with Smooth Curvature Variations Based on Discrete Geometry Models** ————— 1024
Sachio KOBAYASHI and Fumihiko KIMURA
- **Development of Sustainable Society Scenario Simulator toward Sustainable Manufacturing (1st Report)** ————— 1029
—Logical Structure Analysis based on Structural Scenario Description—
Yusuke KISHITA, Yasuhiro YAMASAKI, Yuji MIZUNO, Shinichi FUKUSHIGE and Yasushi UMEDA