

Special Issue

## 2006 JSPE Technology Award

Lecture

- The Development of Magnetic Bearing Spindle with a High DN Value and Application to High Speed

Milling Tohru NAKAGAWA, Isao TASHIRO, Yutaka KADO and Hideyuki MIMA .....619

- Rapid Optical Connector Polishing Machine for on-site Connecting

Shinsuke MATSUI, Shigehisa OHKI, Shuichi YANAGI, Ryo NAGASE  
and Masaru KOBAYASHI .....623

Episode

■ Episode 1/Tohru NAKAGAWA .....627

■ Episode 2/Shinsuke MATSUI .....629

- My Experience in Precision Engineering

Sansaku AOKI .....635

- Gravure

Matsushita Electric Industrial Co., Ltd./NTT .....617

- Student Forum

A story of printing machinery .....631

- Introduction of Laboratories

Precision Engineering Laboratory, Sophia University .....636

Human Support Mechatronics Lab., Dept. of Machine Intelligence & Systems Engineering, Akita Prefectural University .....638

- JSPE News ..... 640
- Information ..... 717
- Corporate Members ..... 738
- JSPE Membership Guidance ..... 740
- From the Lecture Committee ..... 告 6-1

## Paper

- **Basic Study on Feasibility for Position Surveying of the Underground Pipes by In-Pipe Surveyor Using Rotary Encoders** ————— 641  
Toshiaki HAMANO, Manabu ONO and Shigeo KATO
- **Study on Particle Detection for Patterned Wafers by Annular Evanescent Light Illumination (2nd Report)** ————— 648  
—Scanning Measurement Method Processing SELFPs—  
Toshie YOSHIOKA, Takashi MIYOSHI and Yasuhiro TAKAYA
- **Study on Spatial Frequency Domain 2-point Method (1st Report)** ————— 653  
—Calibration of Systematic Error in Case of Combining Two Sets of 2-point Method—  
Xin CHEN, Kiyoshi KOTANI and Kiyoshi TAKAMASU
- **Studies on Strain Distribution Measurement using Digital Image Correlation Method** ————— 659  
—Effect of out-of-plane deformation on strain measurement accuracy and its compensation—  
Michio UNEDA, Masakatsu MATSUSHI, Setsuo IWATA and Ken-ichi ISHIKAWA
- **Image Noise Reduction Using Vibration Mode Shaping for Scanning Electron Microscope** ————— 665  
Mitsuru HAMOCHI and Shinji WAKUI
- **Expanding Measurement Range of Binocular Stereovision Based On Mono-MoCap** ————— 671  
Hidenori TAKAHASHI, Takayuki TANAKA and Shun'ichi KANEKO
- **A New Rapid and Precise Image Rotation Detection Approach** ————— 677  
Takamune SATO, Tomomichi KUSAJIMA and Minoru ITO
- **Time Resolved Observation of Self-sharpening Phenomenon in Single, High Current Discharge and its Dynamics** ————— 682  
Rie TANABE, Yoshiro ITO and Naotake Mohri
- **Precision Grinding of Micro Fresnel Lens Molding Die (2nd Report)** ————— 688  
—Precision Truing of Micro Grinding Wheel with Sharp Edge by Molybdenum Truer and Accuracy Improvement in Fresnel Surface Grinding—  
Yuji YAMAMOTO, Hirofumi SUZUKI, Toshimichi MORIWAKI, Tadashi OKINO and Toshiro HIGUCHI
- **Life Distribution and Reliability for Linear Bearings in Case of Roller Guide** ————— 693  
Shigeo SHIMIZU, Keisuke TSUCHIYA, Hidetake SAITO, Kenji FUJII, Katsuji TOSHA and Hirokazu SHIMODA
- **Feature Preserving Smoothing Method for Noised Meshes** ————— 699  
Tetsuo OYA, Yukinori TADA, Yohei YAMAGUCHI and Masatake HIGASHI
- **Study of Process Planning based on Feature Dependency of Manufacturing Features (3rd Report)** ————— 705  
—Creation of Integrated Feature Dependency of Manufacturing Features including implicit relationship with geometry—  
Takashi INOUE, Takeshi KISHINAMI and Fumiki TANAKA
- **Study on the Manufacturing Method of the Motor Cores to Reduce the Cogging Torque** ————— 711  
Hiroyuki AKITA, Yuji NAKAHARA, Takashi YOSHIOKA and Takashi MIYOSHI