

---

**Titles of Papers Published in the  
Transactions of the Korean Society of Mechanical  
Engineers  
(Vol. 31, No. 1, 2007)**

---

〈Materials and Fracture · CAE and Applied Mechanics · Dynamics and Control · Production  
and Design Engineering · Reliability Divisions〉

〈Original Papers〉

- Design Guidance of Jig/Fixture for Flexible Manufacturing System ..... Chul Kyun Shin  
Theoretical Analysis and Experimental Characterization of DoD Metal-jet System  
..... Taik-Min Le, Tae Goo Kang, Jeong-Soon Yang, Jeong-Dai Jo, Kwang-Young Kim,  
Byung-Oh Choi and Dong-Soo Kim
- Nonlinear Adaptive Control for Linear Motor Through the Estimation of Friction Forces and  
Force Ripples ..... Hongbin Kim, Byonghuae Lee, Sangoh Han and Kunsoo Huh
- Reliability Optimization of Urban Transit Brake System for Efficient Maintenance  
..... Chul-Ho Bae, Hyun-Jun Kim, Jung-Hwan Lee, Se-Hoon Kim,  
Ho-Yong Lee and Myung-Won Suh
- Mechanical Design, Fabrication and Test of a Biomimetic Fish Robot using LIPCA as an Artificial  
Muscle ..... Seok Heo, T.Wiguna, Nam Seo Goo and Hoon Cheol Park
- Optimal Coil Configuration Design Methodology Using the Concept of Equivalent Magnetizing  
Current ..... Woochul Kim, Min Tae Kim and Yoon Young Kim
- Fabrication of Nickel Nano and Microstructures by Redeposition Phenomena in Ion Etching  
Process ..... Phill Gu Jung, Sung Jin Hwang, Sang Min Lee and Jong Soo Ko
- Candidate Points and Representative Cross-Validation Approach for Sequential Sampling  
..... Seung Won Kim, Jae Jun Jung and Tae Hee Lee
- Axiomatic Design of a Micromanipulator using Displacement Amplifier  
.....  
Seog-young Han, Sang-jun Yoon, Jun-seong Hwang, Min-sue Kim, Jae-yong Park, Byung-ju  
Yi and Seon-jung Kim
- Estimation of Fracture Resistance Curves of Nuclear Materials using Small Punch Specimen  
..... Yoon-Suk Chang, Jong-Min Kim, Jae-Boong Choi, Young-Jin Kim,  
Min-Chul Kim and Bong-Sang Lee
- Decoupling Process of a Coupled Design in Axiomatic Design Using the TRIZ  
..... Gwang-Seob Shin, Yong-Il Kim and Gyung-Jin Park
- Elastic Analysis of an Unbounded Elastic Solid with an Inclusion Considering Composite Fiber  
Volume Fraction ..... Jung-Ki Lee and Hui-duck Han
- Vibration Design of a Rigid Body Supported by Orthogonal Springs  
..... Seon Jun Jang, Jun Ho Lee and Yong Je Choi
- Integration of Shell FEA with Geometric Modeling based on NURBS Surface Representaion  
..... Jinbok Choi, Hee-Yuel Roh and Maenghyo Cho
- A Study on Robust Design Optimization of Layered Plates Bonding Process Considering Uncer-  
tainties ..... Woo-Hyuk Lee, Jung-Jin Park, Joo-Ho Choi and Soo-Yong Lee

- A Coupled Analysis of Smart Plate under Electro-Mechanical Loading Using Enhanced Lower-Order Shear Deformation Theory ..... Jinho Oh, Maenghyo Cho and Jun-Sik Kim  
 Modified Sensitivity Control of a Semi-Active Suspension System with MR-Damper for Ride Comfort Improvement ..... Tae-Shik Kim, Keum-Shik Hong, Rae-Kwan Kim, Jae-Woo Park and Chang-Do Huh

〈**Technical Paper**〉

- Improvement of the Carbon Nanotube Tip by Focused Ion Beam and Its Performance Evaluation ..... Young-Hyun Shin, Yu-Hwan Yoon, Eung-Sug Lee, Chang-Soo Han  
 List of Referees for Papers Published in 2006 ..... KSME Editorial

〈**Thermal Engineering · Fluid Engineering · Energy and Power Engineering Divisions**〉

〈**Original Papers**〉

- A Study on Experiment and Numerical Analysis for Disclosing Shell Wall Thinning of a Feedwater Heater ..... Kyung Hoon Kim, Woo Lee and Kyeong Mo Hwang  
 An Experimental Investigation of Jet Impingement Cooling Using the Vortex Tube ..... Woon-Chul Shin, Chang-Soo Kim and Shin-Chul Bae  
 Fluid Flow and Convective Heat Transfer Characteristics of Al<sub>2</sub>O<sub>3</sub> Nanofluids ..... Kyo Sik Hwang, Ji-Hwan Lee, Byeong Ho Lee and Seok Pil Jang  
 Numerical Analysis on the Effect of Wall Shear Stress Around the Ring Drug-Eluting Stent ..... Taewon Seo and Abdul Barakat  
 Second-Moment Closure Modelling of Particle-Laden Homogeneous Turbulent Shear Flows ..... Jong Keun Shin, Jeong Sik Seo, Seong Ho Han and Young Don Choi  
 Compressibility Factor Effect on the Turbulence Heat Transfer of Super-critical Carbon Dioxide by an Elliptic-blending Second Moment Closure ..... Han Seong Ho, Choi young Don, Seo jeong Sik and Shin Jung Kun  
 Numerical Simulation of Hydro-Acoustic Flow in Piezo Inkjet Print Head ..... You-Seop Lee, Sang Kwon Wee, Se Young Oh and Jae Woo Chung  
 Study on Composite Cathode for YSZ Electrolyte in SOFC ..... Changbo Lee and Joongmyeon Bae  
 A Three-Dimensional Numerical Simulation of Rotating Stall in an Axial Compressor ..... Minsuk Choi, Je Hyun Baek, Seong Hwan Oh and Dock Jong Ki  
 Effects of Bleed Flow and Angled Ribs on Heat Transfer Distributions in a Rotating Square Channel ..... Suk Hwan Park, Yun Heung Jeon, Kyung Min Kim, Dong Hyun Lee and Hyung Hee Cho  
 Effects of Channel Rotation and Bleed Flow on Heat/Mass Transfer Characteristics in a 90° Ribbed Square Channel ..... Suk Hwan Park, Yun Heung Jeon, Kyung Min Kim, Dong Hyun Lee and Hyung Hee Cho  
 An Empirical Correlation of Refrigerant Flow Rate Through Coiled Capillary Tubes ..... Chasik Park, Yonghee Jang, Yongchan Kim and YoungSoo Lee  
 The Effect of Residence Time and Heat Loss on NO<sub>x</sub> Formation Characteristics in the Downstream Region of CH<sub>4</sub>/Air Premixed Flame ..... Cheol-Hong Hwang, Sung-Ho Hyun, Young-Jo Tak and Chang-Eon Lee  
 List of Referees for Papers Published in 2006 ..... KSME Editorial