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**Titles of Papers Published in the  
Transactions of the Korean Society of Mechanical  
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〈**Materials and Fracture · CAE and Applied Mechanics · Dynamics and Control · Production,  
Design Engineering and Reliability Divisions**〉

〈**Original Papers**〉

- A Study on the Levitation Mechanism Based on the Electrodynamical Force for a Maglev Planar Transportation System ..... Joon Hyuk Park and Yoon Su Baek
- Creep Characterization of 9Cr1Mo Steel Used in Super Critical Power Plant by Conversion of Stress and Strain for SP-Creep Test ..... Seung-Se Baek, Jung-Hun Park and Hyo-Sun Yu
- Shape Optimization Considering Fatigue Life of Pulley in Power-Steering Pulley ..... Hee-Jin Shim and Jung-Kyu Kim
- A Study on the Determination of Material Property by Cylinder Compression Test ..... Dosung Cha, Hongseok Choi and Naksoo Kim
- Study on the Reduced System Based on the Sub-Domain Method ..... Hyungi Kim Maenghyo Cho; Hyuk Kim Hyoung-Gil Choi and Jae-Rack Choi
- Structural Design Optimization on the Reduced System Constructed from Large-Scaled Problem ..... Hyungi Kim and Maenghyo Cho
- Mechanical Behavior of Sandwich Panels with Quasi-Kagome Truss Core Fabricated from Expanded Metals ..... Chae-Hong Lim, Ji-Hyun Lim, Jae-Gyu Jung, Jong-Dae Lim and Ki-Ju Kang
- Ductile Failure Analysis of Defective API X65 Pipes Based on Stress-Modified Fracture Strain Criterion ..... Chang-Kyun Oh, Yun-Jae Kim, Jong-Hyun Baek, Young-Pyo Kim and Woo-Sik Kim
- Robust Control for a Ultra-Precision Stage System ..... JongSung Park and Kyuwon Jeong
- Structural Design of Piezoelectric Actuator Considering Polarization Direction and Continuous Approximation of Material Distribution ..... Young Seok Lim, Seungjae Min and Jeonghoon Yoo
- Finite Element Analysis of Re-Cold Expansion in Order to Improve the Fatigue Life of Fastener Hole that has been Cold Expanded Before ..... Jae Soon Jang, Won Ho Yang and Myoung Rea Cho
- Reliability Estimation Using Two-Stage Kriging Metamodel and Genetic Algorithm ..... Tae-Min Cho, Byeong-Hyeon Ju, Do-Hyun Jung and Byung-Chai Lee
- Topological Mapping and Navigation in Indoor Environment with Invisible Barcode ..... Jinwook Huh, woong sik chung and Wan Kyun Chung
- Evaluation Model for Restraint Effect of Pressure Induced Bending on the Circumferential Through-Wall Crack Opening Considering Plastic Behavior ..... Jin-Weon Kim

Design of Spot Weld Based on the Durability Influence Index and the DOE Analysis

.....Noori Choi, Byeong Hyeon Ju, Jung Min Park, Jae Sung Eom, Dong Seok Kim,  
Hyung Bai Byun and Byung Chai Lee

〈**Technical Papers**〉

Straightening Process of Micro Wires

..... Woong-Kyum Kim, Nam-Pyo Hong, Byeong-Hee Kim and Heon-Young Kim

Source Identification of Non-stationary Sound · Vibration Signals Using Multi-Dimensional Spectral Analysis Method .....

Hyoun-Jin Sim, Hae-Jin Lee, You-Yub Lee,  
Jung-Youn Lee and Jae-Eung Oh

Development of Uniaxial Force Sensor Array for Tactile Sensation Using Fiber Bragg Gratings

..... Jin-Seok Heo and Jung-Ju Lee

Alignment Method of Ion Beam Axis in Focused Ion Beam System

..... Cheol Woo Park, Jong Hang Lee and Seung Oun Kang

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

〈**Original Papers**〉

Design of the 1/8 Scaled HU-KINS Based on the Scaling Laws for the Experimental Investigation of Thermal-Hydraulic Effect of CANDU-6 Moderator

..... Jae Young Lee, Manwoong Kim and Nam Seok Kim

Measurement of Cross-sectional Temperature Distribution in Micro-scale Gap Fluid Using LIF Technique in Combination with CLSM .....

Dong Woon Jeong and Sang Yong Lee

Effect of a Multi Air-staged Burner on NO<sub>x</sub> Formation and Heat Transfer in Furnace Adopted the Reburning Process .....

Hyuk Su Kim, Seung Wook Baek and Chang Yeop Lee

Study on Basic Characteristics of Natural Gas Autothermal Reformer for Fuel Cell Applications .....

Sungkwang Lim, Joongmyeon Bae and Sukwoo Nam

Qualification Test of a Main Coolant Pump for SMART Pilot .....

Sang-Jin Park, Eui-Soo Yoon and Hyoung Woo Oh

Numerical Study of Biomimetic Foil Propulsion .....

Cheol-Heui Han, Hak-Jin Lee and Jin-Soo Cho

Pressure Drop Distributions in Rotating Channels with Turning Region and Angled Ribs (I)

..... Kyung Min Kim, Suk Hwan Park, Dong Hyun Lee and Hyung Hee Cho

Pressure Drop Distributions in Rotating Channels with Turning Region and Angled Ribs (II)

..... Kyung Min Kim, Suk Hwan Park, Dong Hyun Lee and Hyung Hee Cho

SRS Inversion of Flame Temperature/Concentration Profile with Radiation/Turbulence Interaction .....

Ju-Yong Ko, Hyun Keol Kim and Tae-Ho Song

Measuring Thermal Conductivity of Nanofluids by Steady State Method .....

Shin Pyo Lee

Edge Flame Instability of CH<sub>4</sub>-Air Diffusion Flame Diluted with CO<sub>2</sub>

..... Dong Jin Hwang, Jeong Park, Jeong Soo Kim, Sang In Keel and Tae Kwon Kim

Three-Dimensional Flow and Aerodynamic Loss Downstream of a Turbine Rotor Blade with a Squealer Tip .....

Byoung Joo Chae and Sang Woo Lee

Wake-Induced Boundary Layer Transition on an Airfoil at Moderate Free-Stream Turbulence .....

Tae-Choon Park, Woo-Pyung Jeon and Shin-Hyung Kang