

[Main conference room]

9:00	12:00	Registration			
9:00	9:05	Opening Ceremony Welcome Speech Kimihide Tsukamoto			
Plenary Speech Chair : Yoshifumi OHBUCHI (Kumamoto University), Co-chair : Kimihide TSUKAMOTO (NIT, Kagoshima College)					Page
9:05	9:25	Greening Education and Creative Ideas at the University Yun-Hae Kim (Korea Maritime and Ocean University) About the Purpose of the University's Research Hidetoshi SAKAMOTO (Doshisha University)			1
Invited Lecture Chair :Kimihide TSUKAMOTO (NIT, Kagoshima College), Co-chair : Hidetoshi SAKAMOTO (Doshisha University)					Page
9:25	9:45	Tensile Property at 77 K of Hot-Rolled Mg-3Al-1Zn Alloy	Akihiro TAKAHASHI, Naoyuki YAMAMOTO, Hiromi MIURA, Masakazu KOBAYASHI, Toshinobu TOYOHIRO	NIT, Miyakonojo College	2
9:45	10:05	Finite Element Simulation of Tightening Process of Bolt and Nut connections with Pitch Difference	Nao-Aki NODA, Yoshikazu SANO, Xi LIU, Yunting HUANG, Yasushi TAKASE	Kyushu Institute of Technology, Japan	8
10:05	10:20	Group Photograph			
Session A1 Chair :Kyung-In Cho (Korea Maritime and Ocean University), Co-chair : Takumi TOKUDA (NIT, Kagoshima College)					Page
10:20	10:30	Investigation of blister occurrence condition and mechanism in carbon mechanical seal	Yuma Mori, Takashi Matsuoka, Tomoko Hirayama, Hidetoshi Sakamoto	Doshisha University	10
10:30	10:40	Development of Creativity and Entrepreneurship Curriculum for University Students	Jeong-Hyo Hong, Soo-Jeong Park, Yun-Hae Kim	Korea Maritime and Ocean University	12
10:40	10:50	Research on Thermal Conductivity of Nanodiamond-PTFE Filled PAN-MWCNTs Composite Carbon Nanofiber Sheets	Qi-Dong, Su-Jong Yoon	Pusan National University	14
10:50	11:00	Tensile test using Strain Gage of Late Wood in Japanese Cedar	Kosuke KAMIMURA, Akihiro TAKAHASHI, Naoyuki YAMAMOTO and Toshinobu TOYOHIRO	NIT, Miyakonojo College	16
11:00	13:00	Lunch			

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13:00	13:10	Improved Threads Nut Model of Bolt-Nut Connections Having Slight Pitch Difference on the Fatigue Strength	Yasushi TAKASE, Nao-Aki NODA, Xin CHEN, Yoshikazu SANNO, Hikaru MARUYAMA	Kyusyu Institute of Technology 18
13:10	13:20	Creative Idea for stepped patch Repair of GFRP by Adding the Reinforced Particles	Kyeng-Seok Jung, Chang-Wook Park, Yun-Hae Kim	Korea Maritime and Ocean University 20
13:20	13:30	Development of Device for Observing Deflection of Cantilever Beams	Ryo YOSHIDA, Kimihide TSUKAMOTO	NIT, Kagoshima College 22
13:30	13:40	Effect of micro-bubble at impact fracture of glass bottle	Sota SUGAHARA, Hidetoshi SAKAMOTO, Yoshifumi OHBUCHI, Shigeru TANAKA	Kumamoto University 24
13:40	13:50	A Study of Low Cycle Fatigue for Hot Rolled STS304	Chi-Hwan Kim, Tae-Gyu Kim	Pusan National University 29
13:50	14:00	Evaluation of Shear Force Characteristics of Adsorbed Additive Layers Using Aerostatic Bearing Rheometer	Tomoyuki HARADA, Takashi Matsuoka, Tomoko Hirayama, Hidetoshi Sakamoto	Doshisha University 31
14:00	14:10	Adsorption Behavior of Triazoles as Corrosion Inhibitor on Copper Surface in Lubricant	Yusuke Futamata, Tomoko Hirayama, Takashi Matsuoka, Hidetoshi sakamoto	Doshisha University 33
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Session A3				
Chair : Hiroto SHINNO (Doshisha University), Co-chair : Sae-Bom Park (Pusan National University)				Page
14:30	14:40	Color standardization of Cu-Sn alloy as chemical composition, constituent phases, and surface roughness	Min-Gyu Kim, Gyeong-Ho Kim, Hye-Sung Kim	Pusan National University 35
14:40	14:50	Adhesion Strength of the GFRP Single Lap Bonded Joints with Different Surface Roughness of the Bonding Interfaces	Soo-Jeong Park, Yun-Hae Kim	Korea Maritime and Ocean University 38
14:50	15:00	Interfacial creep simulation for shrink-fitted bimetallic work roll	Hiromasa SAKAI, Nao-Aki NODA, Yoshikazu SANNO, Yasushi TAKASE, Guowei ZHANG	Kyusyu Institute of Technology 40
15:00	15:10	The Risk Analysis on Unsteady Works by experimental measurement	Yuya Muta, Genji Hotta, Yoshifumi Ohbuch, Hidetoshi Sakamoto	NIT, Ariake College 42
15:10	15:20	Development of functional parts using Carbon Fiber Reinforced Plastics	Hiroki KATO, Yoshifumi OHBUCHI, Hidetoshi SAKAMOTO	Kumamoto University 47
15:20	15:30	Containing fibrillated wood powder by nanoindentation test Evaluation of material properties of WPC	Kenji FUKUDA, Takashi Matsuoka, Tomoko Hirayama, Hidetoshi SAKAMOTO	Doshisha University 50
15:30	15:40	Analysis of Adsorption Layer Formed by Polymer Type Friction Modifier	Naohiro KIKUCHI, Tomoko Hirayama, Takashi Matsuoka, Hidetoshi Sakamoto	Doshisha University 52

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10:30	10:40	A Study On Wear Characteristics of Ni-Cr-Mo-V Alloy Steel With Environmental Condition	Mun-Ki Bae, Qi-Dong, Tae-Gyu Kim	Pusan National University	56
10:40	10:50	Improvement of run-out by partially herringbone-grooved journal bearing against fluctuating load	Hiroto SHINNO, Tomoko HIRAYAMA, Takashi MATSUOKA, Hidetoshi SAKAMOTO	Doshisha University	58
10:50	11:00	Development of inspection system using the depth sensor	Munetaka RYU, Hidetoshi SAKAMOTO, Yoshifumi OHBUCHI, Tsuyoshi YOSHIDA	Kumamoto University	60
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13:10	13:20	Study on Simple Modeling of MRI Equipment	Takumi TOKUDA, Kiyotaka KAMATA	NIT, Kagoshima College	67
13:20	13:30	Research on the Dispersibility of nanopowder by oxygen Plasma Treatment	JingJing-Zhang, Qi-Dong, Wangrong Li, Sae-Bom Park, Tae-Gyu Kim	Pusan National University	71
13:30	13:40	Creative Project Design of the Desk-Mounted Multifunctional Penta-Case for Writing Instruments	Kyung-In Cho, Min-Gi Kim, Yun-Sang Kwon, Yun-Hae Kim	Korea Maritime and Ocean University	73
13:40	13:50	Effect of Oiliness Additives Mixed in O/W emulsion on Reconstructed Film thickness under Starved Elasto-Hydrodynamic-Lubrication Condition	Yoshiki IKOMA, Takashi Matsuoka, Tomoko Hirayama, Hidetoshi Sakamoto	Doshisha University	75
13:50	14:00	Effect of Kinds of Thickener in Grease on Formation of Grease Film and Traction Property	Noboru YAOTANI, Tomoko HIRAYAMA, Takashi MATSUOKA, Hidetoshi SAKAMOTO, Hiroshi KOMIYA	Doshisha University	77
14:00	14:10	Grasp of nano tribology properties of the Combination Use of MoDTC and Organic Friction Modifier by the colloidal probe AFM	Yuto Sasaki, Takashi Matsuoka, Tomoko Hirayama, Hidetoshi Sakamoto	Doshisha University	79
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14:40	14:50	Gun bullet collision behavior for development of protect board	Shota FUKUZAKI, Hidetoshi SAKAMOTO, Yoshifumi OHBUCHI, Hidehiro HATA, Daisuke INAO	Kumamoto University	83
14:50	15:00	Material Characteristics Evaluation of CFRP for New Product Design	Tomoki MORI, Yoshifumi OHBUCHI and Hidetoshi SAKAMOTO	Kumamoto University	86
15:00	15:10	Development of Water-Bloom Removal System using the Centrifugal Force	Ji-Su Choi, Soo-Jeong Park, Yun-Hae Kim	Korea Maritime and Ocean University	89
15:10	15:20	Comparison between Langmuir-Blodgett Films Made from Additive Molecules and Adsorbed Additive Layers by AFM with colloidal probe	Koki Shinohara, Tomoko Hirayama, Hidetoshi Sakamoto and Takashi Matsuoka	Doshisha University	91
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15:30	15:40	Performance of Honeycomb Structure for Nanobubbles Generating Apparatus under Different Cell Size and Velocity	Takahiko UEDA, Fei REN, Nao-Aki NODA, Yoshikazu SANO, Yasushi TAKASE, Toshihiko UMEKAGE, Yuji YONEZAWA	Kyusyu Institute of Technology	95

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10:30	10:40	Creative Project Design of the Dual Massage Slipper for Indoors	Ji-Ho Hwang, Min-Hye Kang, Kook-Hwa Choi, Sung-Yong Mun, Yun-Hae Kim	Korea Maritime and Ocean University	99
10:40	10:50	Lubricating Property between Timing Chain and Guide Comparing with Stribeck Curve	Kengo KATSUMI, Tomoko Hirayama, Takashi Matsuoka, Hidetoshi Sakamoto	Doshisha University	101
10:50	11:00	Development of Device to Measure Wing Lift Force based on Difference in Shape of Wing and Angle of Attack	Ryuki FUKUYAMA, Kimihide TSUKAMOTO	NIT, Kagoshima College	103
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13:10	13:20	Evaluation of Assist Chair by Motion Capture System and Myoelectric Signal	Ryosuke IZUTSU, Yoshifumi OHBUCHI, Hidetoshi SAKAMOTO, Koki ARADONO, Syogo ITOYAMA and Hiroshi HARADA	Kumamoto University	107
13:20	13:30	Development of Multifunctional Travel Carrier for visually disabled People (Care+Carrier : Carrier)	Sung-Yong Mun, Kung-Min Kim, So-Yeong Jang, Ga-Hyun Choi, Jeong-Hyo Hong, Yun-Hae Kim	Korea Maritime and Ocean University	109
13:30	13:40	A Development on the Automatic Charger System of White Board Marker for Re-USE	Jong-Min Kim, Ji-Ho Hwang, Han-Byul Park, Seong-Won Jung, Min-Hae Kang, Young-Min Lee, Yun-Hae Kim	Korea Maritime and Ocean University	112
13:40	13:50	Electrochemical Properties of Boron-Doped Diamond Thin Film Synthesized By Mpcvd on a Titanium Substrate to Use As an Ozone Generator	Yeong-Min Park, Hyun-Je Kim, Tae-Gyu Kim	Pusan National University	114
13:50	14:00	Flow Characteristics of Pressurized Ethanol through Floating Ring Seal under High Temperature	Tsukasa HORIKI, Tomoko HIRAYAMA, Takashi MATSUOKA, Hidetoshi SAKAMOTO, Satoshi TAKADA	Doshisha University	119
14:00	14:10	The Observation of EHL Oil Film Behavior on Contact Surface with Micro-dimples under Vertical Vibration	Daiki MATSUOKA, Tomoko HIRAYAMA, Takashi MATSUOKA, Hidetoshi SAKAMOTO	Doshisha University	121
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14:40	14:50	A Development of Multi-functional Cup Holders Reflecting Human Needs	Jae Hui Bang, Kyung-In Cho, Hwa-Jeong Kim, Yun-Sang Kwon, Yoon-Hyuk Lee, Jeong-Hyo Hong, Soo-Jeong Park, Yun-Hae Kim	Korea Maritime and Ocean University	125
14:50	15:00	Evaluation of Assistance Instrument for Aged Person by Human Motion Analysis	Koki ARADONO, Yoshifumi OHBUCHI, Hidetoshi SAKAMOTO, Hiroshi HARADA, Ryosuke IZUTSU	Kumamoto University	127
15:00	15:10	Shear Characteristics of Greases with Various Thickeners Evaluated by Sliding Tester with Parallel Plates	Yusuke ISOYAMA, Takashi Matsuoka, Tomoko Hirayama, Hiroshi Komiya, Hidetoshi Sakamoto,	Doshisha University	129
15:10	15:20	Wear properties of high modulus pitch-based CFRP with SiC nano-particles	Yoshiyuki FUJII, Kimiyoshi NAITO, Takashi MATSUOKA, Hidetoshi SAKAMOTO, Tomoko HIRAYAMA	Doshisha University	131
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