

## CURRICULUM VITAE

**Professor Seock-Sam Kim**

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### **Personal Data**

Name : Seock-Sam Kim  
Date of Birth : 7<sup>th</sup> February 1949  
Sex : Male  
Amrita Status : Married  
Nationality : Korean

### **Education**

1987.03	Ph.D.	Mechanical Engineering Tohoku University, Sendai, Japan
1976.08	M.Sc.	Mechanical Engineering Kyungpook National University, Daegu, Republic of Korea
1973.02	B.Sc.	Mechanical Engineering Kyungpook National University, Daegu, Republic of Korea

### **Professional Career**

1979.10 ~ Present	Professor	Kyungpook National University, Daegu, Republic of Korea
1990.02~1991.01	Guest Researcher	National Institute of Standards and Technology, USA
1994.08~1996.07	Dean	Department of Mechanical Engineering, Graduate School Kyungpook National University, Daegu, Republic of Korea
1994.05~1994.12	Member	Industrial-Based Technological Development Committee, Ministry of Commerce, Industry and Energy, Republic of Korea
1995.11~Present	Director	Engineering Tribology Research Institute, Kyungpook National University, Daegu, Republic of Korea

1998.03	Director Industrial Foundation Evaluation Committee, Ministry of Commerce, Industry and Energy, Republic of Korea
2004.03~2006.03	Dean Collage of Engineering, Kyungpook National University, Daegu, Republic of Korea
2004.03~2006.03	Dean Graduate School of Industry, Kyungpook National University, Daegu, Republic of Korea
2005.08	President 3 <sup>rd</sup> International Creative Intelligence Robot Olympiad, Republic of Korea
2007.04~2010.03	Chairman Chairman of the Technical Committee, Skills Competition, Daegu, Republic of Korea

### Activity in Society

1991.07~1997.12	Editor Korea Society of Tribologist and Lubrication Engineers
1997.07~1999.01	Vice President Korea Society of Tribologist and Lubrication Engineers
2000.01~2001.12	President Korea Society of Tribologist and Lubrication Engineers
2002.10~2001.12	Chairman, Organizing Committee, ASITRIB 2002, Jeju, Republic of Korea
2002.01~Present	Vice President International Tribology Council (ITC), United Kingdom
2005.06	AMDP 2005, Auckland, New Zealand, Plenary Lecture
2006.10.16~19	ASIATRIB 2006, Kanazawa, Japan, Invited Paper
2006.12	ICAME 2006, Chennai, India, Plenary Lecture
1998.10~2013.09	Chairman, Organizing Committee, International Symposium on High Performance of Tribosystem (ISPT), Daegu, Republic of Korea
2008.10.12~15	AMDP 2008, Beijing, China, Invited Paper
2008.05~Present	Deputy Director General of the IBC for Asia, United Kingdom
2008.06~Present	ABI Advisor Directorate International, USA
2008.08.23~31	The 2008 World Form, United Kingdom

### Professional Membership

1987.03~Present	Korean Society of Tribologists and Lubrication Engineers (KSTLE), Republic of Korea
1987.03~Present	Japanese Society of Tribologists, Japan
2001.01~Present	Korean Society Mechanical Engineers, Republic of Korea
2004.01~Present	Society of Tribologists and Lubrication Engineers (STLE), USA
2005.03~Present	The National Academy of Engineering of Korea, Republic of Korea
2012.06~Present	American Society of Mechanical Engineers, USA

## Academic Achievements

1. Published in International and National Journals: 112
2. International and National Conference Proceedings : 164
3. Books : 3
4. R&D Projects with Industry and Government: 74
5. Patents : 5

## External Examiners

1. Mr. Md. Abdul Maleque, (Doctoral Dissertation), "Triological Study of Palm Oil Methyl Ester Added Lubrications for Automotive Triob-Materials under Boundary Lubrication", Department of Mechanical Engineering, University of Malaya, (March 23, 2001)
2. Japan-US Advanced Collaboration Education Program (JUACEP), Graduate School of Engineering, Nagoya University, (November 8, 2013).
3. External Assessor for post professor of Prof. Dr. Md. Abdul Maleque, Department of Manufacturing and Materials Engineering, Kulliyyah of Engineering, April 15, 2013

## \*PhD Student Supervision

- |          |                   |   |
|----------|-------------------|---|
| 1. 1997  | Kim, Sang Woo     | Fracture Mechanics Study on Wear Mechanism of Ceramics  |
| 2. 1998  | Park, Jun Mork    | Due to repeated sliding contact surface hardening of metals and Wear Behavior   |
| 3. 1999  | Cho, Kwang Hee    | Fretting Wear Characteristics of Zircaloy-4 Tube  |
| 4. 2000  | Lim, Jeong Il     | Tribology of dental restorative material properties   |
| 5. 2000  | Chae, Young Hoon  | Sliding Wear Behavior of Plasma-Sprayed Ceramic Coating   |
| 6. 2002  | Kim, Tae Hyung    | Fretting Wear Evaluation of Ceramic Coated Nuclear Fuel Rod Cladding Materials  |
| 7. 2003  | Kim, Song Pa      | Hertz contact stress intensity factors of surface cracks under evaluation and application of the wear mechanism           |
| 8. 2004  | Le Minh Quy       | Effects of the interlayer on contact and wear behavior of ceramic coatings  |
| 9. 2007  | Le Thoung Hien    | Simulation of thermal barrier coating DIESEL engines  |
| 10. 2008 | Lee, Jin Woo      | Tribological Behavior of Diamond-like Carbon Film under Environmental Conditions  |
| 11. 2013 | Jang, Beom Taek   | Mechanical Characterization and Tribological Behavior of Bulk Amorphous Alloys in the System Fe-C-Si-B-P-M (M=Al, Cr, Mo) |
| 12. 2014 | Dawit Zenebe Segu | Tribological Evaluation of Multi - Shape Textured Surface   |

## Honor and Awards

1996.12	Appreciation plaque from Small and Medium Business Administration, Republic of Korea
1997.05	Excellent Paper Award, KOFST (The Korean Federation of Science and Technology Societies)
1997.07	The Certificate of Commendation of Technical Guidance from Small and Medium Business Administration
1998.05	Yuri-Gagarin Medal from Russia
2000.03	Appreciation plaque from Dean of Department of Mechanical Engineering
2000.05	Award certificate from President of Kyungpook National University
2002.11	The scientific award, KSME(Korean Society of Mechanical Engineers)
2003.06	Achievement Award from Korea Society of Tribologists and Lubrication Engineers
2007.05	Award certificate from President of Kyungpook National University
2008.04	IBC TOP 100 ENGINEERS 2008
2008.08	ABI MAN OF THE YEAR IN ENGINEERING 2008
2013.05	Achievement Award from The Korean Federation of Teacher's Associations
2013.06	IBCHall of Fame

## Publications in International Journals

NO	Title	Publication named	Date of Issue
1	Influence on friction behavior of micro-texturing under lubricated non-conformal contact	Meccanica	2013.09.01
2	Application of Taguchi techniques to study friction and wear properties of MoS <sub>2</sub> coatings deposited on laser textured surface	Surface & Coatings Technology	2013.06.01
3	The effect of multi-scale laser textured surface on lubrication regime	Applied Surface Science	2012.12.01
4	Sliding wear behavior of Fe-based bulk metallic glass at high temperature	Journal of Mechanical Science and Technology	2012.09.01
5	Dry Sliding Tribological Properties of Fe-Based Bulk Metallic Glass	Tribology letters	2012.04.28
6	THE FRICTION BEHAVIOR OF NBR SURFACE MODIFIED BY ARGON PLASMA TREATMENT	International Journal of Modern Physics B	2011.12.30
7	Sliding friction and wear behavior of Fe-based bulk metallic glass in 3.5% NaCl solution	Journal of Materials Science	2011.09.02
8	Long-Lasting Hydrophilicity on Nanostructured Si-Incorporated Diamond-Like Carbon Films	LANGMUIR	2010.10.15
9	Effect of geometrical parameters in micro-grooved crosshatch pattern under lubricated sliding friction	TRIBOLOGY INTERNATIONAL	2010.08.01

10	EFFECT OF FRICTIONAL HEATING ON THE PROPAGATION OF SURFACE CRACK UNDER HERTZIAN CONTACT LOADING	INTERNATIONAL JOURNAL OF MODERN PHYSICS B	2010.06.30
11	THE EFFECT OF RESIDUAL STRESS ON THE WEAR PROPERTIES OF DLC COATINGS	INTERNATIONAL JOURNAL OF MODERN PHYSICS B	2010.06.30
12	Tribological behavior of Fe-based bulk metallic glass	JMST	2010.01.01
13	Modeling of Fretting Wear Based on Solution of wear Contact Problem	tribology letter	2009.09.01
14	Defect effect on tribological behavior of diamond-like carbon films deposited with	applied surface science	2009.05.15
15	Triboloal Performance of Alternating-layered Si-DLC/DLC Films Under Humid Conditions	TRIBOLOGY LETTERS	2009.03.12
16	Effect of Improved Surface Wetability and Adhesion of Undulated	KSTLE International Journal	2008.12.31
17	Surface Modification of Automobile Rubber by Various Plasma Treatments	KSTLE International Journal	2008.12.31
18	Triboligical Characteristics of DLC Film using Substrates with	KSTLE International Journal	2008.12.31
19	Humidity effect on friction behaviors of nano-undulated diamond-like carbon films	DIAMOND AND RELATED MATERIALS	2008.05.01
20	Friction and wear behavior of structural ceramics sliding against zirconia	WEAR	2008.04.10
21	Application of solution of contact problem with wear to simulation of wear at fretting-corrosion	FRICITION AND WEAR(Russian)	2007.11.01
22	Wear mechanisms map proposal of crane sheave steel materials	INTERNATIONAL JOURNAL OF MODERN PHYSICS B	2006.10.30
23	Tribological evaluation of structural ceramics under sliding friction	INTERNATIONAL JOURNAL OF MODERN PHYSICS B	2006.10.30
24	Numerical investigation on ceramic coatings under spherical indentation with metallic interlayer-part1. uncracked coatings	International Journal of Modern physics B	2006.10.30
25	Finite Element Analysis of Ceramic Coatings under Spherical Indentation with Metallic Interlayer: Part I Ring Crack	Journal of Materials science &Technology	2006.09.01
26	Element Analysis of Ceramic Coatings under Spherical Indentation with Metallic Interlayer: Part II Ring Crack	Journal of Materials science &Technology	2006.09.01
27	Sliding Wear Characteristics of Plasma Sprayed 8% Y2O3-Zr Coating for Post-spray Heat Treatment	Key Engineering Materials	2006.09.01
28	Sliding wear behavior of plasma sprayed zirconia coating on cast aluminum against silicon carbide ceramic	JOURNAL OF MATERIALS SCIENCE &TECHNOLOGY	2005.09.01
29	Analysis of the failure of turbocharger shaft bearing in diesel engines	ADVANCES IN FRACTURE AND STRENGTH, PTS 1- 4	2005.07.01
30	A fundamental study of the tribological characteristics of sheave steel against a wire rope	ADVANCES IN FRACTURE AND STRENGTH, PTS 1- 4 Book Series: KEY ENGINEERING MATERIALS	2005.07.01
31	Improvement in strength of 2024 Al alloy by enhanced solution treatment	ADVANCES IN FRACTURE AND STRENGTH, PTS 1- 4	2005.07.01

		Book Series: KEY ENGINEERING MATERIALS	
32	Morphological analysis and classification of types of surface corrosion damage by digital image processing	Corrosion Science	2005.01.01
33	An Investigation on High Strain Rate Superplasticity of an Al-Cu-Mg-Tl-Sr Ingot Alloy	Materials Science Forum	2004.09.18
34	Sliding wear Behavior of Plasma Sprayed Alumina-Based Composite Coating against	J. of MATERIALS SCIENCE & TECHNOLOGY	2004.07.01
35	Characteristics evaluation of plasma sprayed ceramic coatings by nano/micro-indentation test	Tribology Letters	2004.05.02
36	Bearing load distribution studies in a multi bearing rotor system and a remote computing method based on the Internet	KSME International Journal	2004.02.06
37	Oxidation performance of oils containing ZnDTC, ZnDDP and their mixture after oxidation test by PDSC	Thermochimica	2003.11.21
38	A Fundamental Study for the Sliding Wear Characteristics of the Crane Sheave Against a Rope Wire	J. of KSME Series A	2003.11.01
39	Effects of Metal-Plasma Source Ion Implantation on Tribological Properties of DLC film	Key Engineering Materials	2003.11.01
40	The Sliding Wear Characteristics of the Carbon Steel Castings against High Carbon Steel Wire Rods	J. of the KSTLE	2003.08.01
41	The Study of Characteristics Evaluation for Bimorph PZT Cantilever and its Application	J. of the KSTLE	2003.06.01
42	Study on Tribology Characteristics of Friction Material Based on Tribo-Systems	KSTLE International Journal	2003.06.01
43	Fracture and Tribological Evaluation of Dental Composite Resins Containing Pre-polymerized Particle Fillers	Journal of Material Science and Technology	2003.05.01
44	Oxidation performance of oils containing ZnDTC, ZnDDP and their mixture after oxidation test by PDSC	thermochimica acta	2003.05.01
45	Estimation of Stress Intensity Factors for Vertical Edge Crack Under Hertzian Contact by Geometric Function Method	INTERNATIONAL JOURNAL OF MODERN PHYSICS B	2003.01.01
46	Tribological behavior of CrN coating on aluminum alloys deposited by arc ion plating	Journal of Materials Research	2002.12.01
47	Sliding-wear behavior of TiN-and CrN-coated 2024 aluminum alloy against an Al <sub>2</sub> O <sub>3</sub> ball	Tribology Letters	2002.10.01
48	Tribological Characteristics of Magnetron Sputtered MoS <sub>2</sub> films in Various Atmospheric Conditions	KSME International Journal	2002.09.01
49	Tribological Performance of Al <sub>2</sub> O <sub>3</sub> /NiCr Coating	KSME International Journal	2002.07.01
50	Interfacial reaction and joint strength of silicon nitride ceramic composites bonded with Y <sub>2</sub> O <sub>3</sub> -Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> -Si <sub>3</sub> N <sub>4</sub> mixture	MATERIALS LETTERS	2002.07.01
51	AntioXidation synergism between ZnDTC and ZnDDP in mineral oil	Tribology Letters	2002.07.01
52	Tribological Characteristics of Magnetron Sputtered MoS <sub>2</sub> films in Various Atmospheric Conditions	KSME International Journal	2002.06.10

53	The Development of Partial Model for Thermo-Mechanical Stress Analyses of Part with Coated Layer under Contact Load	KSTLE internation journal	2002.06.01
54	Thermoelastic Finite Element Analysis of Double horizontal Subsurface Cracks Due to sliding Surface Traction	KSTLE internation journal	2002.06.01
55	Thermo-Mechanical Stress Analyses of Part with Coated Layer under Contact Load Using Partial Model	KSTLE internation journal	2002.06.01
56	Fretting damage of TiN coated zircaloy-4 tube	Wear	2001.10.01
57	Fretting Wear mechanisms of Zircaloy-4 and Inconel 600 Contact in Air	KSME International Journal	2001.09.01
58	Tribological Evaluation of Dental Composite Resins Containing Prepolymerized Particle Fillers	KSME International Journal	2001.06.01
59	Tribological characteristics of silicon nitride at elevated temperature	Tribology Letters	2001.01.01
60	Tribology of threaded joints and stationary contacts of aviation and space systems	Friction and Wear international Scientific Journal	2000.12.01
61	Tribology of threaded joints and stationary contacts of aviation and space systems	J. of Friction and Wear	2000.12.01
62	Tribological Characteristic of MoS2 Coating in High Vacuum	KSTLE International Journal	2000.12.01
63	Effect of Filler Morphology on Wear Characteristics of Composite Resins	THE JOURNAL OF THE KOREA RESEARCH SOCIETY FOR DENTAL MATREIALS	2000.12.01
64	Tribological Characteristics of MoS2 Coatings in High Vacuum	Journal of the KSTLE	2000.12.01
65	Finite Element Analysis of Subsurface Multiple Horizontal Cracks Propagation in a Half-space Due to Sliding Contact	Journal of the KSTLE	2000.10.01
66	Tribological characteristics of silicon nitride on elevated temperature	Journal of the KSTLE	2000.08.01
67	Fretting Wear Characteristics of STS304 Steel in Seawater	Journal of the KSTLE	2000.08.01
68	A simplified estimation of stress intensity factor on the hertzian contact	KSTLE International Journal	2000.06.01
69	Friction and Wear Behaviors of Conventional Composite Resins	Journal of the KSTLE	2000.06.01
70	Reliability and service life of friction units in space engineering systems	Friction and Wear international Scientific Journal	2000.03.01
71	Reliability problems of friction units for space equipment	J.of Machinery Manufacture	2000.03.01
72	Friction and Wear Characteristics of Plasma-sprayed Al2O3-40%TiO2 and Cr2O3 Coatings on Aluminum Alloy	Journal of Tribology (China)	2000.02.01
73	Fractures and Wear Behavior of Dental Composite Resins Containing Prepolymerized Particle Fillers	J. of KSME Series A	2000.02.01
74	Sliding wear behavior of ceramic, plasma sprayed on casting aluminum alloy against SiC ball	Tribology Letters	2000.01.05

75	Wear Behaviour of Plasma Sprayed Ceramics on Aluminium Alloy against SiC Ball	TRANSACTIONS OF MECHANICAL ENGINEERING	2000.01.01
76	Sliding Wear Behavior of Al <sub>2</sub> O <sub>3</sub> / NiCr Coating	J. of KSME Series A	1999.07.01
77	Friction units in space	J.of Machinery Manufacture and Reliability	1999.06.01
78	Fractures and Wear Behavior of Dental Composite Resins Containing Prepolymerized Particle Fillers	Journal of the KSTLE	1999.06.01
79	Comparison of Fretting Wear Characteristics of Zircaloy-4 Tube in Light Water and in Air	Journal of the KSTLE	1999.03.01
80	Evaluation of Wear Characteristics for Al <sub>2</sub> O <sub>3</sub> -40%TiO <sub>2</sub> Sprayed on Casted Aluminum Alloy	Journal of the KSTLE	1999.03.01
81	Tribological peculiarities of mechanical systems for operation in the open space	Friction and Wear int'l Scientific Journal	1999.01.01
82	Tribological Behavior of Mechanical Systems in The Outer Space	Journal of Friction and Wear	1999.01.01
83	The open friction units creation problem for space applications	Machine Building	1998.12.01
84	T-curve, Wear and Erosion of Silicon Carbide	Journal of the KSTLE	1998.12.01
85	Fretting Wear Characteristics of Zircaloy-4 Tube in Light Water	Journal of the KSTLE	1998.12.01
86	Fretting Wear Characteristics of Zircaloy-4 Tube	WEAR	1998.08.00
87	Tribological Characteristics for High Performance Metallic Friction Materials	Journal of the KSTLE	1998.03.00
88	The analysis for Surface Hardening by Repeated Sliding Contact	Journal of the KSTLE	1997.12.31
89	Friction and Wear Characteristics of Plasma Coated Surface of Casting Aluminum Alloy	J. of KSME Series A	1997.00.00
90	Wear and Wear Transition in Silicon Carbide Ceramics during Sliding	J.Am.Ceram.Soc.	1996.00.00
91	Mutual Interference of Two Surface Cracks under Hertzian Contact Loading	J. of KSME Series A	1996.00.00
92	Propagation Characteristics of a Surface Crack on a Semi-Infinite Body Due to Frictional Heating	J. of KSME Series A	1996.00.00
93	The Assessment of Ceramic Wear by The Parameter Scf	Journal of the KSTLE	1996.00.00
94	Wear and Wear Transition Mechanism in Silicon Carbide during Sliding	J.Am.Ceram.Soc.	1995.00.00
95	An Analysis on Surface Cracking Due to Thermomechanical Loading	Journal of KSTLE	1995.00.00
96	Wear Behavior of TiN Coatings Deposited on High Speed Steel and Alloy Tool Steel	J. of KSME Series A	1995.00.00
97	Effects of Interface Boundary Strength on Wear and Wear Transition during Sliding in Silicon Carbide Ceramics	Journal of the KSTLE	1995.00.00
98	A New Parameter for Assessment of Ceramic Wear	Wear	1994.00.00
99	Wear Mechanism of TiN coated high speed steel during sliding	Wear	1993.00.00
100	A Proposition of a New Parameter in Ceramic Wear ( I ) - Friction and Wear Characteristics of Silicon Nitride and Zirconia	J. of KSME Series A	1993.00.00



101	Propagation Analysis of Surface Crack Due to Hertzian Contact	Journal of the KSTLE	1992.00.00
102	A New Solution for Mechanisms Including Coulomb Friction	KSME Journal	1990.00.00
103	Fracture Mechanics Study on Wear Mechanism of Ceramics - Discussions on Experimental Results of Wear Test -	J. of KSME Series A	1990.00.00
104	Propagation Behavior of Inclined Surface Crack of Semi - Infinite Elastic Body under Hertzian Contact	J. of KSME Series A	1990.00.00
105	Macroscopic Wear Characteristics of Ceramics under the Rolling Contact	Journal of the KSTLE	1989.00.00
106	Rolling Wear Mechanism of Ceramics by SEM Observation	Journal of the KSTLE	1989.00.00
107	Seizure and Wear in Alumina Ceramics	Journal of JSLE International Edition	1987.00.00
108	Wear Mechanism of Ceramic Materials in Dry Rolling Friction	Trans. ASME. Journal of Tribology	1986.10.01
109	Seizure and Wear in Alumina Ceramics	Journal of JSLE International Edition	1986.00.00
110	Properties of Seizure and Wear in Alumina Ceramic Ball and Steel Ball	Research Review of Kyungpook National Univ.	1984.00.00
111	A study on Dry Friction-Induced Sound	J. of KSME Series A	1984.00.00
112	A Study on Wear Characteristics of Alloyed Tool Steel	Journal of Kyungpook Engineering	1982.00.00

### International and National Conference Proceedings

NO	Title	Proceeding	Release Date
1	Wear Monitoring of the Vehicle Brake Pad by Using Ultrasonic Sensors	World Tribology Congress 2013	2013.09.12
2	A Combination Effect of Laser Surface Texturing and Solid Lubricant Film on Tribological Properties by Multi-Dimple Pattern	World Tribology Congress 2013	2013.09.12
3	Long-time measurement of interface temperature of sliding surfaces using an amorphous pin combined with thermocouple wires	Proceedings of the KSTLE Autumn Annual Meetings	2013.10.11
4	Monitoring and Predicting the Brake Pad Wear by Using Ultrasonic Sensors	Proceedings of the KSTLE Autumn Annual Meetings	2013.05.25
5	Friction property on Geometric Feature and density for Micro-Ellipses Pattern	Proceedings of the KSTLE Autumn Annual Meetings	2012.10.23
6	Sliding Friction Property of Micro-scale Laser Surface Pattern	Proceedings of the KSTLE Autumn Annual Meetings	2011.10.22
7	Brake pad wear measurement system development	Proceedings of the KSTLE Autumn Annual Meetings	2011.10.22
8	Tribological Characteristics of DLC coated bearing steel in sea-water environment	Proceedings of the KSTLE Autumn Annual Meetings	2011.10.22
9	Sliding Friction Property of Micro-scale Ellipse shape on Sliding Direction	Proceedings of the KSTLE Autumn Annual Meetings	2011.10.22
10	Friction property for sliding contact of Micro patterned Half circle	Proceedings of the KSTLE Autumn Annual Meetings	2010.05.22
11	Study on surface modification automobile rubber by Ar plasma treatment	Proceedings of the KSTLE Autumn Annual Meetings	2008.11.28
12	Tribological Characteristics of DLC Film due to Hardness Variation of Bearing Title	Proceedings of the KSTLE Autumn Annual Meetings	2008.11.28
13	Sliding friction property on the micro-dimple size effect	Proceedings of the KSTLE Autumn	2008.11.28

	under mixed lubrication condition	Annual Meetings	
14	Measuring Residual Stresses of Ceramic Coatings	The International Conference on Computational Solid Mechanics 2008	2008.11.27
15	Effects of Working Conditions on Tribological Characteristics of Zirconia Ceramic Coatings	The International Conference on Computational Solid Mechanics 2008	2008.11.27
16	ROLLING/SLIDING WEAR BEHAVIOR OF HIGH CARBON STEEL WIRE ROD (HSWR) OF TRACTION MACHINE	Proceedings of the STLE/ASME International Joint Tribology Conference	2008.10.20
17	FRICTIONAL HEATING EFFECT ON THE PROPAGATION OF SURFACE CRACK UNDER HERTZIAN CONTACT LOADING	Proceedings of the STLE/ASME International Joint Tribology Conference	2008.10.20
18	The influence of controlled D.C. bias characteristics on the nanoscale wear properties of DLC films	International Conference on Advanced Material, Development and Performance 2008	2008.10.13
19	Wear behavior of hard carbon steel wire rods(HSWR) under grease lubrication	International Conference on Advanced Materials, Development and Performance 2008	2008.10.13
20	Wetting and Adhesion Behavior of Undulated a-C:H Film Deposited on Nano-scale Copper Dot	Advanced Material Research	2008.07.29
21	Wetting and tribological behaviors of Si-DLC film modified with oxygen plasma	Proceedings of the KSTLE Autumn Annual Meetings	2008.06.20
22	Surface modification of rubber using auto-mobile by plasma treatment	Proceedings of the KSTLE Autumn Annual Meetings	2008.06.20
23	Wear behavior of High Carbon Steel Wire Rods in Rolling/Sliding Contact	Proceedings of the KSTLE Autumn Annual Meetings	2008.06.20
24	Influence of angle and width on friction in micro-grooved crosshatch pattern under lubricated sliding friction	13th Nordic Symposium on Tribology	2008.06.13
25	Wear behavior of steel wire under grease lubrication	13th Nordic Symposium on Tribology	2008.06.13
26	Wear behavior of steel wire under grease-lubricated slipping wear test	The 9th international symposium on high performance of tribosystem & mechatronics(ISPTM2007)	2007.10.06
27	Friction properties of micro-groove hatch pattern under lubricated sliding contact	The Third Asia International Conference on Tribology 2006	2006.10.16
28	Ceramic wear behavior in tribo-fatigue	The Third Asia International Conference on Tribology 2006	2006.10.16
29	The metallic interlayer analysis of ceramic coating system under spherical indenter loading	The Third Asia International Conference on Tribology 2006	2006.10.16
30	Sliding Wear Characteristics of Plasma Sprayed 8% Y2O3-Zr Coating for Post-spray Heat Treatment	5th International Conference on Fracture and Damage Mechanics	2006.09.13
31	Wear characteristics of structural ceramics in Tribo-Fatigue	Proceedings of the KSME Spring Annual Meetings	2006.06.20
32	Surface Texturing for high performance of Tribosystem	The 8th International Symposium on high Performance of Tribosystem & Mechatronics	2006.06.20
33	Analysis of Wear Mechanism in Tribo-Fatigue	The 8th International Symposium on high Performance of Tribosystem & Mechatronics	2006.06.20
34	Computational Thermal Barrier Coating Diesel Engine	The 8th International Symposium on high Performance of Tribosystem & Mechatronics	2006.06.20
35	Effect of Changing DC Bias Voltage on Nano Wear Behavior Amorphous Carbon films Deposited by Magnetron Sputter	The 8th International Symposium on high Performance of Tribosystem & Mechatronics	2006.06.20
36	Environmental Dependence on Tribological Behavior of DLC films with Nano-undulated Surface	The 8th International Symposium on high Performance of Tribosystem & Mechatronics	2006.06.20
37	Mechanisms of Structural Ceramics Under Sliding Friction	The 12th Nordic Symposium on Tribology 2006	2006.06.07
38	Influence of Residual Stress Variation On Substrate Bias	Proceedings of the KSTLE Autumn	2005.11.25

	In Carbon Coating	Annual Meetings 2005	
39	Tribo-Fatigue characteristics of structural ceramics	Proceedings of the KSTLE Autumn Annual Meetings 2005	2005.11.25
40	Low Heat Rejection (LHR) Diesel Engines	Proceedings of International Conference on Automotive Technology	2005.10.11
41	Tribological Evaluation of Structural Ceramics under Sliding Friction Condition	The International Symposium on High Performance of Tribosystem 2005	2005.10.11
42	Low Heat Rejection Engines	The International Symposium on High Performance of Tribosystem 2005	2005.10.11
43	Thermal Barrier Coatings for Automotive Engines	International Pacific Conference 13th	2005.08.21
44	Finite element analysis of ceramic coating systems under spherical indentation with metallic interlayer- Part I. Uncracked coatings	Word Tribology Congress III 2005	2005.08.12
45	Finite element analysis of ceramic coating systems under spherical indentation with metallic interlayer- Part II. Ring crack analysis	Word Tribology Congress III 2005	2005.08.12
46	Sliding wear behavior of plasma sprayed zirconia ceramic coatings under different conditions	Word Tribology Congress III 2005	2005.08.12
47	The behavior of tribological characteristics of diesel crank-shaft bearing	Word Tribology Congress III 2005	2005.08.12
48	Numerical Analysis of Ceramic Coatings under Spherical Indentation with Metallic Interlayer- Part II. Ring Crack	Advanced Materials Development & Performance Conference 2005	2005.07.11
49	Numerical Analysis of Ceramic Coatings under Spherical Indentation with Metallic Interlayer- Part I. Uncracked Coatings	Advanced Materials Development & Performance Conference 2005	2005.07.11
50	Tribological Evaluation of Structural Ceramics under Sliding Friction	Advanced Materials Development & Performance Conference 2005	2005.07.11
51	Wear Mechanism Assessments of The Carbon Steel Castings for Crane Sheave Materials in Lubrication Condition	Advanced Materials Development & Performance Conference 2005	2005.07.11
52	Mechanica and Tribological Properties of Si-DLC-DLC Multi-layer in Humid Conditions	The 1st International Conference on Manufacturing Machine Design and Tribology	2005.06.23
53	Ceramic-Coatings for Diesel Engines	Proceedings of the KSME Autumn Annual Meetings	2005.06.14
54	Thermal Barrier Coatings for Diesel Engines	Proceedings of the KSME Autumn Annual Meetings	2005.05.27
55	Fundamental study on the effect of friction reduction based Micro-Scale surface texturing	Proceedings of the KSTLE Autumn Annual Meetings	2004.11.12
56	Tribological Characteristics of Sliding Contact between Different Combinations of Ceramic	Proceedings of the KSTLE Autumn Annual Meetings	2004.11.12
57	Effect of Plasma Immersion Ion Implanted and deposited layer on Adhesion Strength of DLC films	Proceedings of the KSTLE Autumn Annual Meetings	2004.11.12
58	The Evaluation on Wear characteristics of the crane Sheave	Proceedings of the KSTLE Autumn Annual Meetings	2004.11.12
59	Sliding Wear Behavior of Plasma Sprayed Zirconia Coating against Silicon Carbide Ceramic Ball	Proceedings of the KSTLE Autumn Annual Meetings	2004.11.12
60	Tribological durability evaluation of structural ceramics on sliding contact	Proceedings of the KSTLE Spring Annual Meetings	2004.06.11
61	Nono Wear Processing of Si by RCA treatment	Proceedings of the KSTLE Spring Annual Meetings	2004.06.11
62	Effect of SiCp size on wear behavior of SiCp/Cu matrix composite	Proceedings of the KSTLE Spring Annual Meetings	2004.06.11
63	Roles of Metal-Plasma Immersion Ion Implantation on Tribological Properties of DLC	Proceedings of the 11th Nordic symposium on Tribology	2004.06.03

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64	Sliding Wear Behavior of Plasma-Sprayed Al <sub>2</sub> O <sub>3</sub> -30% ZrO <sub>2</sub> /NiCr Coating	Proceedings of the STLE's 59th Annual Meetings	2004.05.18
65	Tribological Properties of DLC films on Modified Surface by TiC Plasma Immersion Ion	Proceedings of the KSME Spring Annual Meetings	2004.04.29
66	A study on the Certification System of Elevator Main Safety Components of European Union	Proceedings of the KSEE	2003.12.09
67	On-line Monitoring of Tribology Parameters and Fault Diagnosis for Disc Brake System	Proceedings of the KSTLE Autumn Annual Meetings	2003.11.20
68	A Study of Instrumented by Finite Elements Analysis	Proceedings of the KSTLE Autumn Annual Meetings	2003.11.20
69	Influence of counter-bodies on the tribological behavior of diamond-like carbon coatings	Proceedings of the KSTLE Autumn Annual Meetings	2003.11.20
70	Mechanical Property Evaluation of Diamond-like Carbon Coated by PE-CVD	Proceedings of the KSTLE Autumn Annual Meetings	2003.11.20
71	Tribological Estimation of Carbon Based Passivation Layer for Micro-Device Application	The 5th International Symposium on Space Tribology	2003.08.22
72	Study on The Bearing Load Allocation in Large Turbine-Generator Sets and The Remote Computing Method Based on Internet	The 5th International Symposium on Space Tribology	2003.08.22
73	Sliding wear performance of several plasma-sprayed alumina-based composite coatings against an Al <sub>2</sub> O <sub>3</sub> ball	Proceedings of the KSTLE Spring Annual Meetings	2003.06.05
74	Study on Tribology Characteristics of Friction Material Based on System	Proceedings of the KSTLE Spring Annual Meetings	2003.06.05
75	Evaluation of the characteristics of plasma sprayed ceramic coatings by nano/micro indentation test	Proceedings of the KSTLE Spring Annual Meetings	2003.06.05
76	Effects of Metal-Plasma Source Ion Implantation on the Adhesion strength of DLC film	2003 IEEE International Conference on Plasma Science	2003.06.03
77	Research on Telemonitoring and Telediagnosis System of Large Hoist Equipment	Proceeding of the Korean Society for Elevator Engineering	2003.05.29
78	Fretting Resistance Improvement of TiAlN Coated Zircaloy-4	6th International Tribology Conference AUSTRIB'02	2002.12.05
79	Effect of Humidity on Tribological Behavior of Si-DLC/DLC Multi-layer	Proceeding of The Second Asia International Conference on Tribology	2002.10.21
80	Effect of an temperatures of post-spray heat treatment on wear behavior of 8%Y <sub>2</sub> O <sub>3</sub> -ZrO <sub>2</sub> Coating	Proceeding of The Second Asia International Conference on Tribology	2002.10.21
81	Experimental Investigation of Fretting Behavior of TiAlN Coated Nuclear Fuel Rod	Proceeding of The Second Asia International Conference on Tribology	2002.10.21
82	Fretting Wear of a Spring Supported Tube Subjected to Transverse Vibration	Proceeding of The Second Asia International Conference on Tribology	2002.10.21
83	Effect of Load and Anode/Cathode Area Ratio on Wear of Zr-alloy in Na <sub>2</sub> SO <sub>4</sub> Solution	Proceeding of The Second Asia International Conference on Tribology	2002.10.21
84	Fretting Wear Assessment of TiN Coated Fuel Rod Cladding Materials	4th International Conference on Tribology	2002.06.12
85	Wear Behavior of SM55C Steel by Rolling Contact	Proceedings of the KSTLE Spring Annual Meetings	2002.05.01
86	Evaluation of The Characteristics of Plasma Sprayed Ceramic Coatings by Indentation Test	Proceedings of the KSTLE Spring Annual Meetings	2002.05.01
87	Fretting Wear Evaluation of TiAlN Coated Nuclear Fuel Rod Cladding Materials	Proceedings of the KSTLE Spring Annual Meetings	2002.05.01
88	Effect of MoDDP on Antioxidation of ZnDDP in mineral Oil	13th international Colloquium Tribology	2002.01.15
89	Tribological Characteristics of Si-DLC/DLC films with humid environments	Proceedings of the KSTLE Autumn Annual Meeting	2001.11.01
90	Elastic-Plastic Finite Element Analysis of Tin Thin Film	Proceedings of the KSTLE Autumn Annual Meeting	2001.11.01

91	Wear Characteristics of plasma sprayed yttria stabilized zirconia coating as phase transformation	Proceedings of the KSTLE Autumn Annual Meeting	2001.11.01
92	Tribochemical Mechanism of Borate of Triethanolamine in Water Solution by XPS	Proceedings of the KSTLE Autumn Annual Meeting	2001.11.01
93	Wear and Friction Characteristics of Cr <sub>2</sub> O <sub>3</sub> Coating included SiO <sub>2</sub> and TiO <sub>2</sub>	Proceedings of the KSTLE Autumn Annual Meeting	2001.11.01
94	Tribological Characteristics of WC/C multiplayer films with various environments	Proceedings of the KSTLE Autumn Annual Meeting	2001.11.01
95	Experimental Investigation of Fretting Mechanisms of TiN Coated Fuel Rod Cladding materials	Proceedings of APCFS & ATEM '01 in Memory of Prof. H. Takahashi	2001.10.20
96	Antioxidation action of ZnDDP mixed with DoDDP in mineral oil	The 4rd International Symposium on High Performance of tribosystem	2001.06.15
97	Damage and fracture for spheroidized steels during uniaxial tensile testing	The 4rd International Symposium on High Performance of tribosystem	2001.06.15
98	Antioxidation synergism between ZnDTC and ZnDDP in mineral oil	Proceedings of the KSTLE Spring Annual Meetings	2001.06.07
99	Sliding Wear Behavior of Plasma-Sprayed Al <sub>2</sub> O <sub>3</sub> -TiO <sub>2</sub> Coating against Cemented Carbide	Proceedings of the KSTLE Spring Annual Meetings	2001.06.07
100	The Sliding Wear Characteristics of Carbon Steel Castings against High Carbon Steel Wire Rods	Proceedings of the KSTLE Spring Annual Meetings	2001.06.07
101	Influence of deposition parameters and the behavior in high vacuum of DLC deposited by micro-wave Plasma-assisted CVD method	Proceedings of the KSTLE Spring Annual Meetings	2001.06.07
102	The Fretting Wear Characteristics of Zircaloy-4 Tube at High Temperature	Proceedings of the KSTLE Spring Annual Meetings	2001.06.07
103	Fretting damage of TiN coated Zircaloy-4 tube	13th International conference on wear of Materials (Canada)	2001.04.22
104	Fretting damage behavior and mechanisms of tin coated zircaloy-4 tube	Science in China (Series A)	2001.04.01
105	Thermoelastic Finite Element Analysis of Multiple horizontal Subsurface Cracks Due to Sliding Surface Traction	Proceedings of the KSTLE Autumn Annual Meetings	2000.11.25
106	Tribological characteristics of sputtered MoS <sub>2</sub> films with Magnetron Sputtering Method in High Vacuum	Proceedings of the KSTLE Autumn Annual Meetings	2000.11.25
107	The mechanism of Corrosive wear of Zirconium alloy in Na <sub>2</sub> SO <sub>4</sub> Solution	Proceeding of ITC, Nagasaki 2000	2000.10.29
108	Fretting Wear Behavior of Inconel 600 and Zircaloy-4 Contact in Air	International Tribology conference Nagasaki, Japan	2000.10.01
109	Tribological Characteristics of Al <sub>2</sub> O <sub>3</sub> /NiCr Coating against an Al <sub>2</sub> O <sub>3</sub> ball	International Tribology conference Nagasaki, Japan	2000.10.01
110	Fretting Wear Behavior of Inconel 600 and Zircaloy-4 Contact in Air	Proceeding of 3 international symposium on tribo-fatigue	2000.10.01
111	Fretting Wear Behavior of Inconel 600 and Zircaloy-4 Contact in Air	Proceedings of International Symposium on Tribo-fatigue Beijing, China	2000.10.01
112	Fretting Characteristics of TiN Coated Zircaloy-4 Tube	Proceedings of International workshop on sensing and evaluation of materials system	2000.08.22
113	Fretting Damage Evaluation of Zircaloy-Inconel Contact	Proceedings of the KSTLE Spring Annual Meetings	2000.06.08
114	Fretting Characteristics of TiN Coated Zircaloy-4 Tube	Proceedings of the KSTLE Spring Annual Meetings	2000.06.08
115	Fretting Wear Property of Zr-Alloy in Na <sub>2</sub> SO <sub>4</sub> Solution	The 3rd International Symposium on High Performance of tribosystem	2000.05.26
116	Fretting Wear Behavior of Zircaloy-4 tube in Light Water	The 3rd International Symposium on High Performance of tribosystem	2000.05.26

117	Fretting Wear Characteristics of STS304 Steel in Seawater	Proceedings of the KSTLE Autumn Annual Meetings	1999.11.20
118	Tribological characteristics of silicon nitride on elevated temperature	Proceedings of the KSTLE Autumn Annual Meetings	1999.11.20
119	Tribological Characteristics of MoS <sub>2</sub> Coatings in High Vacuum	Proceedings of the KSTLE Autumn Annual Meetings	1999.11.20
120	Fretting Wear Characteristics of Zircaloy-4 Tube in Light Water and in Air	Advanced Materials Development&Performance	1999.11.01
121	Wear Behaviors of Plasma sprayed Ceramics on Aluminum Alloy against SiC Ball	Advanced Materials Development And Performance	1999.11.01
122	An analysis on the thermomechanical cracking of the brake disc	Proceedings of ICAT	1999.10.21
123	Finite element Analysis of subsurface crack propagation in half-space Due to Sliding contact	Proceedings of the KSTLE Spring Annual Meetings	1999.06.10
124	A comparison of Fretting Wear Characteristics of Zircaloy-4 Tube in Light Water and in Air	Proceedings of the KSTLE Spring Annual Meetings	1999.06.10
125	Fretting Wear characteristics of Inconcel-Zircaloy contact in Air	Proceedings of the KSTLE Spring Annual Meetings	1999.06.10
126	A Simplified Estimation of Stress Intensity factor on The Hertzian Contact	Proceedings of the KSTLE Spring Annual Meetings	1999.06.10
127	Sliding Wear mechanism of Plasma-Sprayed Ceramics subjected to thermo-mechanical stress	he 2nd International Symposium on High Performance of tribosystem	1999.05.28
128	Wear Behaviors of Plasma sprayed Ceramics on Aluminum Alloy against SiC Ball	The 5th Int. Tribology Conference	1998.12.01
129	Wear Behavior of Dental Composite Resins Coataining Prepolymerized Particle Fillers(1)	Proceedings of the KSTLE Autumn Annual Meetings	1998.11.19
130	Sliding Wear Behavior of Al <sub>2</sub> O <sub>3</sub> / NiCr Coating	Proceedings of the KSME Autumn Annual Meetings	1998.11.06
131	Fretting Wear Characteristics of Zircaloy-4 Tube	The First Asia International Conference on Tribology	1998.10.12
132	Fretting Wear Characteristics of Zircaloy Tube Materials in Light Water, pp.434-437	Proceedings of the 1st Asia International Conference on Tribology	1998.10.00
133	Fretting Wear Characteristics of Zircaloy - 4 Tube in Light Water	Proceedings of the KSTLE Autumn Annual Meetings	1998.06.12
134	R - curve , erosion and wear of silicon carbide ceramics ,	Proceedings of the KSTLE Autumn Annual Meetings	1998.06.12
135	Sliding Wear Characteristics of Zircaloy-4 Tube in Light Water	International Symposium on High Performance of Tribosystem	1998.05.01
136	Tribological Characteristics of Metallic Friction Material of Heavy Equipment	Symposium on Precision machinery	1997.12.06
137	Friction and wear characteristics of grey cast iron disk for commercial vehicles brakes, pp.88-93	3rd International Symposium of the Tribology of Friction Materials	1997.09.00
138	Fretting Wear Characteristics of Zircaloy-4 Tube, p.141	World Tribology Congress	1997.09.00
139	Tribological Characteristics of Cu-based Metallic Friction Material of High Performance, p.544	World Tribology Congress	1997.09.00
140	Tribological Research and collaboration between Kyungpook University and local industries, pp.24-30	Symposium on International Research Exchange, Center for Cooperative and Development, Iwate University	1997.05.15
141	The friction of the surface-treated alloy tool steel. Wear properties	Proceedings of the KSME Autumn Annual Meetings	1997.00.00
142	Evaluation of Wear Characteristics for Al <sub>2</sub> O <sub>3</sub> -40%TiO <sub>2</sub> Sprayed on Casted Aluminum Alloy	Proceedings of the KSTLE Autumn Annual Meetings	1997.00.00
143	A Study on the surface hardening by repeated sliding contact	Proceedings of the KSTLE Autumn Annual Meetings	1997.00.00
144	Friction and Wear Characteristics of Plasma Coated Surface of Casting Aluminum Alloy	Proceedings of the KSME Autumn Annual Meetings	1996.00.00

145	Propagation Characteristics of a Surface Crack on a Semi-Infinite Body Due to Frictional Heating	Proceedings of the KSME Autumn Annual Meetings	1996.00.00
146	Fretting Wear Characteristics of Nuclear Fuel Rod Material	Proceedings of the KSTLE Autumn Annual Meetings	1996.00.00
147	Wear Assessment for Non - asbestos Friction Material against Cast Iron Drum	Proceedings of the KSTLE Autumn Annual Meetings	1996.00.00
148	Collaboration on Tribology between Universities and Industries in Korea	International Workshop on Collaboration on Tribology between Universities and Industries on Iwate University	1995.11.00
149	An Analysis on Surface Cracking Due to Thermomechanical Loading	Proceedings of 1995 Korea-USA Tribology Symposium	1995.10.00
150	The Assessment of Ceramic Wear by The Parameter Scf	'Proceedings of the KSME Autumn Annual Meetings	1995.00.00
151	Thermomechanical Ear Mechanism of Friction Brake	Proceeding of ITC Yokohama '95	1995.00.00
152	Thermomechanical Cracking Analysis of Friction Brake Disc	Proceedings of ACLE	1995.00.00
153	Surface-treated aluminum alloy for casting friction. Wear Characteristics	Proceedings of the KSME Autumn Annual Meetings	1995.00.00
154	The Assessment of Ceramic Wear by The Parameter Scf	Proceedings of the KSME Autumn Annual Meetings	1995.00.00
155	Friction and Wear Characteristics of Gray Cast Iron	Proceedings of the KSME Autumn Annual Meetings	1995.00.00
156	Transition during sliding wear of silicon carbide instruments	Proceedings of the KSME Autumn Annual Meetings	1995.00.00
157	Effect of silicon carbide cloth is worn on the influence of microstructure	Proceedings of the KSME Autumn Annual Meetings	1995.00.00
158	Wear and wear transition mechanism in SiC and SiC - TiB2 Composites during sliding	Proceedings of the KSTLE Autumn Annual Meetings	1995.00.00
159	A New Parameter for Assessment of Ceramic Wear	Proceedings of the 6th Nordic Symposium on Tribology	1994.06.12
160	Mutual Interference of Two Surface Cracks under Hertzian Contact Loading	Proceedings of the KSME Autumn Annual Meetings	1994.04.23
161	Tribological Characteristics on the Surface of Alloy Tool Steel Machined by Wire Cut Electrical Discharge	Proceedings of the KSTLE Autumn Annual Meeting	1993.11.01
162	Fracture Mechanical study on Wear Mechanism of Ceramics	Proceedings of the KSTLE Autumn Annual Meeting	1993.11.01
163	The wear mechanism of TiN coated high-speed steel	Proceedings of the KSTLE Autumn Annual Meetings	1992.00.00
164	Casting friction and wear properties of aluminum alloys	Proceedings of the KSME Autumn Annual Meetings	1991.00.00

I hereby solemnly affirm that all the above details are true to the best of my knowledge.

3<sup>th</sup> December 2013



Prof. Seock-Sam Kim