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1. Short Biography

J R Lee (Full name in Korean: Jung-Ryul Lee) is associate professor of the Department of Aerospace Engineering in Korea Advanced Institute of Science and Technology, South Korea where he joined in 2015. Before this career movement, he was assistant and associate professor in Chonbuk National University where he joined in 2007. He served as a co-director of the LANL-CBNU Engineering Institute-Korea between Los Alamos National Lab and Chonbuk National University from July 2011 to Dec 2014. He was a visiting scholar of Los Alamos National Laboratory in US from Aug 2013 to July 2014.



He received his MS from KAIST in Korea, and Ph.D from Ecole Nationale Supérieure Des Mines de Saint-Etienne in France with the 1st class honor in 2004. Before joining the university, he has been a scientific staff member at the National Institute of Advanced Industrial Science and Technology in Japan and a research associate at Ecole Nationale Supérieure Des Mines De Saint-Etienne. His research interest includes Smart Hangar (Inventor), integrated systems health monitoring, fiber optic, remote and wireless sensing, advanced nondestructive evaluation and measurement, pyroshock, laser ultrasonics, optics in engineering, and microwave imaging. His application field encompasses space launchers, unmanned air vehicles, wind turbine, power plants, railway structures, automobile, public safety and radome/stealth structures. He has published over 300 articles and patents in this area, and received several awards, including Emerging Researcher

Award in 2007 by the Japanese Society for Nondestructive Inspection, one of 16 Excellent Emerging Researchers Award in 2011 by Ministry of Education, Science & Technology in Korea, Excellent R&D Achievement Award in 2013 by Jeonbuk Province, and Young Scientist Awards in 2015 and 2016 by Korean Composite Material Society and International Sustainable Aviation Research Society (SARES), respectively. His research team was appointed as Global Research & Development Center in 2011. A proof-of-concept paper of Smart Hangar authored by him and his student won the grand prize of the best papers in 2013 from Ministry of Land, Infrastructure and Transport in Korea.

He serves a co-chair of International Conference on ASHMCS2012 and 2014, a guest editor for ACM, JIMSS, SAV, SHM-IJ, Strain and an editorial board member of SHM-IJ, ACM, WSJ. He produced 2 postdocs, 5 Ph.Ds and 13 Masters by Feb 2016. He got married and they have two daughters. Contact: leejrr@kaist.ac.kr.

2. Name and DOB

(Korean) 이 정 루 (English) Jung-Ryul Lee

(Date of Birth) 1976. June 14.

3. Current Affiliations

Korea Advanced Institute of Science and Technology

Associate Professor in Department of Aerospace Eng.

4. Contact Information

Business phone	+82-42-350-3728
E-mail address	leejrr@kaist.ac.kr
Mailing address	291 Daehak-ro, Yuseong-gu, Daejeon, 305-338

5. Academic Training

Year		Education				Degree
From	to	University	Code	Major	Supervisor	
1995	1999	Pusan National University	114000	Department of Aerospace Eng.	N/A	BS Summa cum laude
1999	2001	KAIST	610400	Department of Aerospace Eng.	Chang-Sun Hong	MS
2001	2004	Ecole Nationale Superieure des Mines de Saint-Etienne	FR0035	Department of Mechanical Eng.	Alain Vautrin	PhD
Title of PhD thesis		Application of Laser Interferometric Techniques to the Experimental Analysis of Materials and Structures				

6. Employment History

Period	Institution	Position	Address
02.12.09 ~ 02.12.22	Ecole des Mines de Saint-Etienne (ENSMSE) in France	Teaching Assistant	158, cours Fauriel F-42023 SAINT-ÉTIENNE cedex 2, France www.emse.fr
03.02.01 ~ 03.12.31	Ecole des Mines de Saint-Etienne (ENSMSE) in France	Research Associate	
04.04.15 ~ 05.03.31	National Institute of Advanced Industrial Science and Technology (AIST) in Japan	Postdoc	1-1-1 Umezono, Tsukuba, Ibaraki 305-8568 Japan www.aist.go.jp
05.04.01 ~ 07.03.31	National Institute of Advanced Industrial Science and Technology (AIST) in Japan	Staff Member	
07.04.01 ~ 14.12.31	Department of Aerospace Eng. Chonbuk National University	Full-time lecturer, Assistant Professor, Associate Professor	567 Baekje-daero, Deokjin-gu, Jeonju-si, Jeollabuk-do 561-756, Rep. of Korea www.jbnu.ac.kr
07.10. ~	Korea Research Institute Science	Adjunct Researcher	267 Gajeong-ro, Yuseong-

10.02.	& Technology		gu, Daejeon 305-340, Rep. of Korea www.kriss.re.kr
09.10. ~ 13.07.	CBNU Haneul Project, Ministry of Land and Transportation	Manager	567 Baekje-daero, Deokjin-gu, Jeonju-si, Jeollabuk-do 561-756, Rep. of Korea www.jbnu.ac.kr
11.07. ~ 14.12.31.	LANL-CBNU Engineering Institute Korea	Director	
13.06. ~ 14.12.31	Department of Mechatronics Eng. Chonbuk National University	Associate Professor	
13.08.01. ~ 14.07.31.	Los Alamos National Laboratory in US	Visiting Scholar	P.O. Box 1663 Los Alamos, New Mexico 87545 www.lanl.gov
15.01.01 ~ Present	Department of Aerospace Eng. KAIST	Associate Professor	291 Daehak-ro, Yuseong-gu, Daejeon, 305-338, Rep. of Korea http://www.kaist.ac.kr

7. Awards

Year	Content	Institution
1999	Summa cum laude	Pusan National University
2004	Avec Les Felicitation du Jury	Ecole Nationale Superieure des Mines de Saint-Etienne
2007	Emerging Researcher Award	Japanese Society of Nondestructive Inspection
2009	Emerging Engineering Professor Award	Chonbuk National University
2011	Excellent Academic Award	Chonbuk National University
2011.5	16 Excellent Emerging Researchers Award (Space Launcher Inspection Field)	Ministry of Education, Science and Technology
2011.11	Global Research & Development Center Award (Composite Structural Health Management and Reliability Evaluation Field)	Ministry of Education, Science and Technology
2012	66 Excellent R&D Achievement Examples (Participation of Structural Health Monitoring of Aircraft using Smart Sensors)	National Science and Technology Council
2013	Super grades for Successive 2 years	Korea National Research Foundation

	(Global Research & Development Center)	
2013.12	Grand Prize of the best papers (A proof-of-concept of Smart Hangar)	Ministry of Land, Infrastructure and Transport in Korea
2013.12	Excellent R&D Achievement Award	Jeonbuk Province
2014.05	Excellent poster award	Korean Society of Nondestructive Testing
2015.11	Emerging Academic Award	The Korean Society for Composite Materials
2016.5	Best Presentation Paper Award	The Korean Society for Composite Materials
2016.6	Young Scientist Award	Sustainable Aviation Research Society
2016.11	Best Presentation Paper Award	The Korean Society for Nondestructive Testing
2017.4	Best Presentation Paper Award	The Korean Society for Composite Materials

8. Other honor and achievements

Year	Content		Remark
2007 ~ Present	The Korean Society for Nondestructive Testing	Editorial board member	
2008.01 ~ 2008.12	Jeonbuk Technopark Composite Materials Committee	Member	
2008 ~ Present	The Korean Society for Aeronautical and Space Science Magazine	Editorial board member	
2008	Structural Health Monitoring for Wind Turbine System: A Review of Damage Detection Methods, Measurement Science & Technology, Vol.19(12)	Citation: 458	
2009	The Korean Society for Nondestructive Testing	Guest editor	August
2010	The Korean Society for Nondestructive Testing	Guest editor	June
2010	30 th anniversary conference of The Korean Society for Nondestructive Testing	Organizing committee member	
2010 ~ 2012	The Korean Society for Composite Materials	Editorial board member	

2010	3rd International Conference on Multi-Functional Materials and Structures	Organizing committee member	
2010 ~ Present	Jeonbuk Province Science and Technology Committee	Chair, Member	
2011 ~ 2014	Global R&D Center Committee	Member	
2012 ~ Present	International Conference on Advances in Structural Health Management and Composite Structures	Chair	120+ attendee from 14 countries
2012.08~2014.02	Advanced Composite Materials	Guest editor	Vol.23 Issue 1 (2014) Special Issue
2012.08~2014.05	Journal of Intelligent Material System and Structures	Guest editor	Vol.25 No.5
2012.08~2014.05	Shock and Vibration	Guest editor	Vol.2014
2012.08~Present	Advanced Composite Materials	Editorial board member	SCI
2013 ~ Present	The Scientific World Journal	Editorial board member	Scopus
2014.01 ~ Present	X-NDT Inc.	CEO	
2014.03 ~ Present	Jeonbuk Province Science and Technology Committee	Member	
2014.08	Structural Health Monitoring – An International Journal	Guest editor	Special issue, SCIE
2015.01 ~ Present	The Korean Society for Composite Materials	Editing executive director	
2015 ~ Present	The Korean Society for Nondestructive Testing	Associate editor	
2015.01.01~Present	ASHMCS 2016	Scientific committee member	
2015.05.21~2015.12.30	The Korean Society for Nondestructive Testing Journal	Guest editor	Vol. 35, Issue 6
2015.05.26~2015	The Korean Society for Composite Materials	Guest editor	Vol. 28, Issue 4

5.08.31	Journal		
2015.11.02	OFS-25	Organizing committee member	
2016.02 ~present	ACCM-10	Program committee member	
2016.02.16 ~present	SHM-IJ(Structural Health Monitoring-An International Journal)	Associate Editor	SCI
2016.04.05 ~present	SPIE Smart Structures/NDE: Active and Passive Smart Structures and Integrated Systems	Program committee member	
2016.04.05 ~present	SPIE Smart Structures/NDE: Industrial and Commercial Applications of Smart Structures Technologies	Program committee member	
2016.2~Present	The Boeing company technical contact lab of KAIST	PI	
2016.12.16 ~Present	Measurement Science & Technology	Editorial Board Member	SCI

9. List of Academic and Research Achievements

A. International Journal (SCI)

- 98 R Panwar, D S Son, and J R Lee, Novel optimization method of single square FSS impinged and cascaded radar absorbing composites, *Advanced Composite Materials*, 2017 (Submitted)
- 97 R Panwar and J R Lee, Performance and nondestructive evaluation methods of radome and stealth structures, *Measurement Science & Technology*, 2017 (Accepted)
- 96 Y S Choi and J R Lee, Dual-energy Subtraction Imaging for Evaluation of Barely Visible Impact Damage with Ultrasonic Propagation Imaging System, *Journal of Intelligent Material Systems and Structures*, 2016 (Accepted)
- 95 J Y Park and J R Lee, Application of the Ultrasonic Propagation Imaging System to an Immersed Metallic Structure with a Crack under a Randomly Oscillating Water Surface, *Journal of Mechanical Science and Technology*, 2017 (Accepted)
- 94 S H Abbas, T C Truong, and J R Lee, FPGA-based ultrasonic energy mapping with source removal method for damage visualization in composite structures, *Advanced Composite Materials*, 26(1), p. 3-13, Jun 2017

- 96 A D Abetew, S C Hong, J R Lee, S Baek, J B Ihn, Remote Defect Visualization of Standard Composite Coupons Using a Mobile Pulse-echo Ultrasonic Propagation Imager, *Advanced Composite Materials*, 26(1), 15-27, Jun 2017
- 92 H Asemani, J Park, J R Lee, and N Soltani, Development of PZT-excited stroboscopic shearography for full-field nondestructive evaluation, *Journal of Review of Scientific Instruments*, 88(5), May 2017
- 91 R Panwar, J R Lee, Progress in frequency selective surface-based smart electromagnetic structure: A critical review, *Aerospace Science and Technology*, March 2017
- 90 T C Truong and **J R Lee**, Thickness reconstruction of nuclear power plant pipes with flow accelerated corrosion damage using ultrasonic wavenumber imaging algorithm, *Structural Health Monitoring*, 2017, Available Online
- 89 M Choi, M M Shrestha, **J R Lee**, and C Y Park, Development of a laser-powered wireless ultrasonic device for aircraft structural health monitoring, *Structural Health Monitoring*, 2017, Available Online
- 88 Y S Choi and **J R Lee**, Multi-directional Adjacent Wave Subtraction and Shifted Time Point Mapping Algorithms and Their Application to Defect Visualization in Space Tank Liner, *NDT&E International*, Vol. 86, p. 53–64, March 2017
- 87 R Panwar, S Puthucheri, D Singh, V Agarwala, and **J R Lee**, Microwave absorption properties of FSS impacted composites as a broadband microwave absorber, *Advanced Composite Materials*, 26(2), p. 99-113, Feb 2017
- 86 H J Shin, J Y Park, S C Hong, and **J R Lee**, In situ Non-Destructive Evaluation of an Aircraft UHF Antenna Radome based on Pulse-Echo Ultrasonic Propagation Imaging, *Composite Structures*, Volume 160, p. 16-22, 15 January 2017
- 85 S H Abbas, **J R Lee** and Z Kim, FPGA-based design and implementation of data acquisition and real-time processing for laser ultrasound propagation, *International Journal of Aeronautical and Space Sciences*, 17(4), p. 467-475, Dec 2016
- 84 D Y Bae, **J R Lee**, Development of single channeled serial-connected piezoelectric sensor array and damage visualization based on multi-source wave propagation imaging, *Journal of Intelligent Material Systems and Structures*, Vol. 27(13), p.1861-1870, 2016
- 83 S C Hong, A D Abetew, **J R Lee** and J B Ihn, Three Dimensional Evaluation of Aluminum Plates with Wall-Thinning by Full-Field Pulse-Echo Laser Ultrasonic, *Optics and Lasers in Engineering*, Optics and Lasers in Engineering, In Press, Corrected Proof (Available online) 22 Sep. 2016.
- 82 T T Chung, **J R Lee**, SNR enhancement for composite application using multiple Doppler vibrometers base laser ultrasonic propagation imager, *Optics and Lasers in Engineering*, Vol. 84, pp. 82-88, Sep. 2016
- 81 S C Hong, **J R Lee**, and C Y Park, Development of a Wireless Pilot Arm-Wearable Haptic Interface for UAV Wing Deflection Sensing, *Journal of Intelligent Material Systems and Structures*, 28/9, p.1130-1139 2017.
- 80 H J Shin, **J R Lee**, Development of a long range multi-area scanning ultrasonic propagation imaging system built into a hangar and its application on an actual aircraft, *Structural Health Monitoring*, 16(1), p. 97-111, Aug 2016
- 79 J H Lee, D H Hwang, J K Jang, D J Kim, Y J Lee, **J R Lee** and J H Han, Pyroshock Prediction of Ridge-Cut Explosive Bolts using Hydrocodes, *Shock and Vibration*, Vol. 2016, Article ID 1218767, pp.1-14, 2016
- 78 S H Abbas, J K Jang, **J R Lee**, Z Kim, Development of an FPGA-based Multipoint Laser Pyroshock Measurement System for Explosive Bolts, *Review of Scientific Instruments*, Vol. 87(7), 073302, July 2016.
- 77 D Y Bae, **J R Lee**, A health management technology for multisite cracks in an in-service aircraft fuselage based on multi-time-frame laser ultrasonic energy mapping and serially connected PZTs, *Aerospace Science and Technology*, Vol. 54, pp. 114-121, July 2016.
- 76 **J R Lee**, H C Kim, Multiplexed Hard-Polymer Clad Fiber Temperature Sensor using an Optical Time-domain Reflectometer, *International Journal of Aeronautical and Space Science*, Vol. 17, No. 1, pp. 37–44, Feb. 2016

- 75 M J Choi, **J R Lee**, and C Y Park Development of a laser-powered wireless strain gauge device using a continuous-wave laser and photovoltaic cell, *Journal of Intelligent Material Systems and Structures*, 27(17), p. 2333-2343, Feb 2016
- 74 H Jeong, **J R Lee**, Investigation of mobile ultrasonic propagation imager as a tool for composite wind blade quality control, *Composite Structures*, 133, p.39-45, Dec. 2015
- 73 **J R Lee**, C M Cho, C Y Park, T C Truong, H J Shin, H Jeong, E B Flynn, Spar Disbond Visualization in In-service Composite UAV with Ultrasonic Propagation Imager, *Aerospace Science and Technology*, 45, p.180-185, 2015
- 72 T C Truong, D H Kang, **J R Lee**, C Farrar, Comparative Study of Laser Doppler Vibrometer and Capacitive Air-Coupled Transducer for Ultrasonic Propagation Imager and the New Development of an Efficient Ultrasonic Wavenumber Imaging Algorithm, *Strain*, 51, p.332-342, Aug. 2015
- 71 **J R Lee**, J K Jang, M J Choi, C W Kong, Visualization and Simulation of a Linear Explosive-induced Pyroshock Wave using Q-switched Laser and Phased Array Transducers in a Space Launcher Composite Structure, *Optics & Laser Technology*, 67, p.12-19, April 2015
- 70 J K Jang and **J R Lee**, Nondestructive Prediction of Point Source Pyroshock Response Spectra based on Experimental Conditioning of Laser-Induced Shocks, *Optics & Laser Technology*, 61, p.24-33, Sep. 2014
- 69 S C Hong, S Y Chong, **J R Lee**, C Y Park, Investigation of Laser Pulse Fatigue Effect on Unpainted and Painted CFRP Structures, *Composites: Part B*, 58, p.343-351, March 2014
- 68 S G Taylor, K Farinholt, M J Choi, H M Jeong, J K Jang, G Park, **J R Lee**, M D Todd, Incipient Crack Detection in a Composite Wind Turbine Rotor Blade, *Journal of Intelligent Material Systems and Structures*, 25(5), p.613-620, 2014
- 67 E B Flynn, S Y Chong, G J Jarmer, **J R Lee**, Structural imaging through local wavenumber estimation of guided wave, *NDT&E International*, 59, p.1-10, Oct 2013
- 66 P Giri, **J R Lee**, Development of Wireless Laser Blade-deflection Monitoring System for Mobile Wind Turbine Management Host, *Journal of Intelligent Material Systems and Structures*, 25(11), p.1384-1397, 2014
- 65 **J R Lee**, S Y Chong, N Sunuwar, C Y Park, Repeat scanning technology for laser ultrasonic propagation imaging, *Measurement Science & Technology*, 24(8), p.085201, June 2013
 --- Paper honor ---
 IOP select: Articles from the last 12 months that have been chosen by our editors for their novelty, significance and potential impact on future research.
- 64 **J R Lee**, J K Jang, C W Kong, Fully Noncontact Wave Propagation Imaging in an Immersed Metallic Plate with a Crack, *Shock and Vibration*, Vol. 2014, 895693(8p), 2014
- 63 S Y Chong, **J R Lee**, C W Kong, Shock Response Spectra Reconstruction of Pointwise Explosive-induced Pyroshock based on Signal Processing of Laser Shocks, *Shock and Vibration*, Vol. 2014, 695836(14p), 2014
- 62 H J Shin, **J R Lee**, C Y Park, A novel fiber optic bolt loosening monitoring sensor system, *Journal of Intelligent Material Systems and Structures*, 25(5), p.647-653, 2014
- 61 H C Kim, **J R Lee**, A novel fiber optic temperature monitoring sensor using hard-polymer-clad fiber and optical time-domain reflectometer, *Journal of Intelligent Material Systems and Structures*, 25(5), p.654-661, 2014
- 60 Y S Choi, H M Jeong, **J R Lee**, Laser Ultrasonic System for Surface Crack Visualization in Dissimilar Welds of Control Rod Drive Mechanism Assembly of Nuclear Power Plant, *Shock and Vibration*, Vol. 2014, 296426(10p), 2014

- 59 S Y Chong, J R Lee, Pointwise Explosive-Induced Pyroshock Wave Prediction Based on Numerical Conditioning of laser Shocks, *Experimental Mechanics*, 54(4), 1651-1671
- 58 M J Choi, **J R Lee**, C W Kong, Development of a Numerical Model for an Expanding Tube using AUTODYN, *Shock and Vibration*, Vol.2014, 436156(10p), 2014
- 57 **J R Lee**, N Sunuwar, C Y Park, Comparative Analysis of Laser Ultrasonic Propagation Imaging System with Capacitance and Piezoelectric Air-coupled Transducers, *Journal of Intelligent Material Systems and Structures*, 25(5), p.551-562, 2014
- 56 D Dipesh, **J R Lee**, D Mascarenas, C Farrar, A Review of Flaws and Damage in Space Launch Vehicles: Motors and Engines, *Journal of Intelligent Material Systems and Structures*, 25(5), p.524-540, 2014
- 55 **J R Lee**, D Dipesh, Review of Flaws and Damages in Space Launch Vehicle: Structures, *Journal of Intelligent Material Systems and Structures*, 24(1), p.4-20, January 2013
- 54 Tae-sik Cho, Ki-sun Choi, Dae-cheol Seo, Il-bum Kwon, **Jung-ryul Lee**, Novel fiber optic sensor probe with a pair of highly reflected connectors and a vessel of water absorption material for water leak detection, *Sensors*, 12, p.10906-10919 Aug 2012
- 53 E Figueiredo, G Park, L M Farinholt, C R Farrar, **J R Lee**, Use of time-series predictive models for piezoelectric active-sensing in structural health monitoring applications, *Journal of Vibration and Acoustics*, 134, p.0410141-1~10, Aug 2012
- 52 **J R Lee**, H C Kim, Feasibility of In-situ Blade Deflection Monitoring of a Wind Turbine using a Laser Displacement Sensor within the Tower, *Smart Materials and Structures*, 22(2), 027002(8p) Feb 2013
- 51 S Y Chong, **J R Lee**, C Y Park, Statistical threshold determination method through noise map generation for two dimensional amplitude and time-of-flight mapping of guided waves, *Journal of Sound and Vibration*, 332(5), p.1252-1264, March 2013
- 50 **J R Lee**, C Y Park, C W Kong, Simultaneous Active Strain and Ultrasonic Measurement Using Fiber Acoustic Wave Piezoelectric Transducers, accepted, *Smart Structures and Systems*, 11(2), p.185-197, Feb. 2013
- 49 C C Chia, **J R Lee**, C-Y Park, Radome health management based on synthesized impact detection, laser ultrasonic spectral imaging, and wavelet-transformed ultrasonic propagation imaging methods, *Composites Part B*, 43(8), p.2898-2906, Dec 2012
- 48 C C Chia, H Jeong, **J R Lee**, G Park, Composite aircraft debonding visualization by laser ultrasonic scanning excitation and integrated piezoelectric sensing, *Structural Control & Health Monitoring*, 19(7), p.605–620, Dec 2012
- 47 H J Shin, C Y Yun, G Park, K M. Farinholt, **J R Lee**, C Y Park, S M Jun, C R. Farrar, Assessing Joint Integrity of a Lug Assembly using Piezoelectric Active Sensors, *Structural Control and Health Monitoring*, 19, p.621-631 Nov 2012
- 46 D Dhital, **J R Lee**, A fully non-contact ultrasonic propagation imaging system for closed surface crack evaluation, *Experimental Mechanics*, 52(8), p.1111-1122, October 2012
- 45 **J R Lee**, C C Chia, C Y Park, H M Jeong, Laser ultrasonic anomalous wave propagation imaging method with adjacent wave subtraction: algorithm, *Optics & Laser Technology*, 44(5), p.1507-1515, July 2012
- 44 **J R Lee**, C C Chia, C W Kong, Review of Pyroshock Wave Measurement and Simulation for Space Systems, *Measurement*, 45(4), p.631-642, May 2012

- 43 C C Chia, **J R Lee**, C Y Park, H M Jeong, Laser ultrasonic anomalous wave propagation imaging method with adjacent wave subtraction: application to actual damages in composite wing, *Optics & Laser Technology*, 44(2), p.428-440, March 2012
- 42 **J R Lee**, H Jeong, C W Kong, Wave Propagation Visualization in an Experimental Model for a Control Rod Drive Mechanism Assembly, *Nuclear Engineering and Design*, 241(9), p.3761-3767 Sep 2011
- 41 **J R Lee**, H J Shin, C C Chia, D Dhital, D J Yoon, Y H Huh, Long distance laser ultrasonic propagation imaging system for damage visualization, *Optics and Lasers in Engineering*, 49(12), p.1361-1371, July 2011
- 40 C Y Yun, D Dhital, **J R Lee**, G Park, I B Kwon, Design of multiplexed fiber optic chemical sensing using clad-removable optical fibers, *Optics & Laser Technology*, 44(1), p.269-280, July 2011
- 39 **J R Lee**, S Y Chong, H Jeong, C W Kong, A Time-of-flight Mapping Method for Laser Ultrasound Guided in a Pipe and Its Application to Wall-thinning Visualization, *NDT&E International*, 44(1), p.680-691, Jan 2011
- 38 **J R Lee**, S Y Chong, C Y Yun, D J Yoon, A lasing wavelength stabilized simultaneous multipoint acoustic sensing system using pressure-coupled fiber Bragg gratings, *Optics and Lasers in Engineering*, 49(1), p.110-120, Jan 2011
- 37 S Y Chong, **J R Lee**, H J Shin, A Review of Health and Operation Monitoring Technologies for Trains, *Smart Structures and Systems*, An international Journal, 6(9), p.1079-1105, Dec 2010
- 36 **J R Lee**, D Dhital, D J Yoon, Investigation of cladding and coating stripping methods for specialty optical fibers, *Optics and Lasers in Engineering*, 49(3), p.324-330, October 2010
- 35 **J R Lee**, C C Chia, H J Shin, C Y Park, D J Yoon, Laser ultrasonic propagation imaging method in the frequency domain based on wavelet transformation, *Optics and Laser in Engineering*, 49(1), p.167-175, July 2010
- 34 S Y Chong, **J R Lee**, H M Jeong, H Sohn, Design of Copper/Carbon-Coated Fiber Bragg Grating Acoustic Sensor Net for Integrated Health Monitoring of Nuclear Power Plant, *Nuclear Engineering and Design*, 241, p.1889-1898, May 2010.
- 33 **J R Lee**, H M Jeong, C C Chia, D J Yoon, S S Lee, Application of ultrasonic wave propagation imaging method to automatic damage visualization of nuclear power plant pipeline, *Nuclear Engineering and Design*, 240(10), p.3513-3520, June 2010
- 32 B W Jang, **J R Lee**, S O Park, C G Kim, J S Kim, A health management algorithm for composite train carbody based on FEM/FBG hybrid method, *Composite Structures*, 92, p.1019-1026, Jan 2010
- 31 **J R Lee**, H M Jeong, Design of resonant acoustic sensors using fiber Bragg gratings, *Measurement Science and Technology*, 21(5), 057001(6p), March 2010
- 30 **J R Lee**, C Y Yun, D J Yoon, A structural corrosion monitoring sensor based on a pair of prestrained fiber Bragg gratings, *Measurement Science and Technology*, 21(1), 017002 (7p), Nov 2009
- 29 **J R Lee**, C Y Yun, Development of an optical system for simultaneous ultrasonic propagation imaging at multi-points, *Experimental Mechanics*, 50, p.1041-1049 Sep 2010
- 28 C C Chia, **J R Lee**, H J Shin, Hot target inspection using a welded fibre acoustic wave piezoelectric sensor and laser-ultrasonic mirror scanner, *Measurement Science and Technology*, 20(12), 127003(8p), Sept 2009
- 27 S H Lim, I K Oh, **J R Lee**, Ultrasonic Active Fiber Sensor based on Pulse-echo Method, *Journal of Intelligent Material Systems and Structures*, 20(9), p.1035-1043, June 2009

- 26 **J R Lee**, D J Yoon, J S Kim, A Vautrin, Investigation of shear distance in Michelson interferometer-based shearography for mechanical characterization, *Measurement Science & Technology*, 19(11), 115303(13p), Sep. 2008
- 25 **I K Oh**, S H Lim, **J R Lee**, F K Chang, Fiber sensor based on piezoelectric ultrasonic wave, *Journal of Intelligent Material Systems and Structures*, 19(3), p.299-304, March 2008
- 24 C C Chia, **J R Lee**, H Y Bang, Structural health monitoring for wind turbine system: A review of damage detection methods, *Measurement Science & Technology*, 19(12), 122001(20p), Nov 2008
-----Paper honor-----
Most download paper for 2009
- 23 **J R Lee**, S S Lee, D J Yoon, Simultaneous multipoint acoustic emission sensing using fibre acoustic wave grating sensors with identical spectrum, *Journal of Optics A: Pure and Applied Optics*, 10(8), 085307-9p, August 2008
- 22 C Y Ryu, **J R Lee**, C G Kim, C S Hong, Buckling behavior monitoring of a composite wing box using multiplexed and multi-channelled built-in fiber Bragg grating strain sensors, *NDT&E international*, 41(7), p.534-543, Oct 2008
- 21 S G Kang, M G Kim, **C G Kim**, **J R Lee**, C W Kong, Thermo elastic analysis of a type 3 cryogenic tank considering curing temperature and autofrettage pressure, *Journal of reinforced plastics and composites*, 27(5), p.459-472, March 2008
- 20 **J R Lee**, J Takatsubo, N Toyama, D H Kang, Health monitoring of complex curved structures using an ultrasonic wavefield propagation imaging system, *Measurement and Science technology*, 18(11), p.3816-3824, Nov 2007
- 19 **H Tsuda**, **J R Lee**, Y Guan, J Takatsubo, Investigation of fatigue crack in stainless steel using a mobile fiber Bragg grating ultrasonic sensor, *Optical Fiber Technology*, 13(3), p.209-214, July 2007
- 18 **J R Lee**, J Takatsubo, N Toyama, Disbond monitoring at wing stringer tip based on built-in ultrasonic transducers and a pulsed laser, *Smart Materials and Structures*, 16(4), p.1025-1035, June 2007
- 17 **H Tsuda**, **J R Lee**, Strain and damage monitoring of CFRP in impact loading using a fiber Bragg grating sensor system, *Composites Science and Technology*, 67(7-8), p.1353-1361, June 2007
- 16 **J R Lee**, H Tsuda, B Y Koo, Single mode fibre optic Bragg grating sensing on the base of birefringence in surface-mounting and embedding applications. *Optics and Laser Technology*, 39(1), p.157-164, Feb 2007
- 15 **J R Lee**, H Tsuda, Y Akimune, Apodized fibre Bragg grating acousto-ultrasonic sensor under arbitrary strain using dual Fabry-Perot filters, *Journal of Optics A: Pure and Applied Optics*, 9(1), p.95-100, Jan 2007
- 14 **J R Lee**, H Tsuda, N Toyama, Impact wave and damage detections using a strain-free fiber Bragg grating ultrasonic receiver, *NDT & E International*, 40(1), p.85-93, Jan 2007
- 13 **J R Lee**, H Tsuda, Acousto-ultrasonic sensing using capsular fibre Bragg gratings for temperature compensation, *Measurement Science and Technology*, 17(11), p.2920-2926, Nov 2006
- 12 **H Tsuda**, **J R Lee**, Fatigue crack propagation monitoring of stainless steel using fiber Bragg grating ultrasound sensors, *Smart Materials and Structures*, 15(5), p.1429-1437, Oct 2006
- 11 **J R Lee**, H Tsuda, Monitoring of cracks at an open-hole using built-in fibre wave piezoelectric transducers, *Measurement Science and Technology*, 17(10), p.2643-2649, Aug 2006
- 10 **J R Lee**, H Tsuda, Investigation of a fibre wave piezoelectric transducer, *Measurement Science and Technology*, 17(9), p.2414-2420, Aug 2006

- 9 **J R Lee**, H Tsuda, Sensor application of fibre ultrasonic waveguide, *Measurement Science and Technology*, 17(4), p.645-652, April 2006
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F. Patents

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G. Invited Talks

Date	Lecture Title	Invitation Institute
2017.10.17	In-process and In-situ NDE for Composite Structures	Twenty-Sixth International Conference on Processing and Fabrication of Advanced Materials (PFAM-XXVI)
2017.6.30	Invited talk for 9 leaders for Boeing second century phase 1	Boeing Korea
2017.05.25	Plenary Lecture: Laser Bulk Wave Propagation Imaging System and Its Real World Applications	KSNT Intl Workshop 2017
2017.01.10	Keynote: Aircraft Structure Health Monitoring using Laser and Fiber Optics	The 2nd International Conference for Fiber-optic and Photonic Sensors for Industrial and Safety Applications
2016.10.19	Keynote: In-progress & In-assembly NDE of Composite Space Launcher Structures using Bulk Wave Ultrasonic Propagation Imaging	The 10th Asian-Australasian Conference on Composite

			Materials
국제	2016.08.24	Keynote: Advances in Core Technologies for Smart Hangar	Advances in Structural Health Management and Composite Structures 2016
	2016.06.02	Ultrasonic Propagation Imaging Systems and Their Applications to Aerospace Structures	8th KAIST-NUAA Joint Symposium on Aerospace Eng.
	2015.11.11		
	2015.11.02	INVITED: , Korea Air Force Standard NDE Coupon Test of Full-Field Pulse-Echo Laser Ultrasonic Propagation Imaging System	IEEE Sensors 2015
	2015.11.02	Shipbuilding Application of Laser Doppler Vibrometer-Ultrasonic Propagation Imaging ()	ABS (American Bureau of Shipping) PACIFIC DIVISION
	2015.10.23	: SHM	24
	2015.08.21	Introduction to three kinds of UPI systems and its implementation to real-world applications	National Aerospace Lab. NLR
	2015.06.25	American Society for Nondestructive Testing Level III :	
	2015.05.08.		
	2015.04.17.	/ ()	
	2015.03.27.	Review of Aerospace Materials and Structures	
	2015.02.25.	:	14
	2015.02.24.		
	2015.02.16.	: KAIST NDI	5
	2015.02.09.	“ Fly-by-Haptic” Wireless Haptic Interface of Smart Wings: Deformation and Impact	Los Alamos National Lab.
	2015.01.13	Structural Health Monitoring (Demonstration of A Ultrasonic Propagation Imager and Introduction to Smart Hangar)	
	2015.01.08	A Proof-of-Concept of Smart Hanger	National Aerospace Lab. NLR
	2015.01.07	Ultrasonic Propagation Imager	Delft University of

			Technology
국내	2014.12.16	R&D ()	
	2014.09.25		17
	2014.04.10		
	2014.04.07		
	2014.02.28	Development of Ultrasonic Propagation Imaging System and Its Applications	University of Arizona
	2014.01.21	Laser	
	2012.11.12	Health Management Total Solution of Wind Blade From Manufacturing to Operation	
	2012.09.20	Design/Production/Test of Laser Ultrasonic Scanning System for Composite Structures	National Aerospace Lab.,
	2012.08.28	Structural Health Management Using Laser Ultrasonic Propagation Imaging	Los Alamos Dynamics Short Course
	2012.08.09		
	2012.06.15	Introduction to EI-K Technologies	Office of Naval Research Global
	2012.03.25	SHM Activities in LANL-CBNU Engineering Institute Korea	
	2011.11.04	Introduction to LANL-CBNU EI-K	International Conference on Engineering Education Innovation
	2011.07.04	CRDM	
	2011.03.23	SHM Activities in LANL-CBNU Engineering Institute Korea	
	2009.12.01		
	2009.11.17	Application of Ultrasonic Propagation Imaging Technology to Aircraft, Wind Turbine and Power Plant Structures	Los Alamos National Lab.
	2009.02.09	Q-switched pulsed laser	
	2009.01.21	Lecture 12:	3
	2007.07.09	Built-in structural health monitoring using opto-electro-mechanical sensors and actuators	

국내	2007.07.06	Built-in structural health monitoring using opto-electro-mechanical sensors and actuators	
	2007.02.22	ファイバ波ブラッグ格子センサーを使った多点同時超音波センシングシステム開発	安全・安心な社会 築く先進 非破壊計測技術シンポジウム
	2006.12.20	Development of Simultaneous Multipoint Acousto-ultrasonic Sensing System based on Fiber Wave Bragg Grating Sensors	第5回 構造体診断技術研究グループ ・不均質性解析研究グループ 紹介
	2006.09	Toward structural clinic	
	2006.09	Structural Health Monitoring based on Built-in sensor and actuator	
	2005.01	Optical Measurement Techniques for Mechanical Characterisation and Health Monitoring of Materials and Structures	