**Curriculum Vitae**

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Department of Civil Engineering

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**EDUCATION**

# M.S., Civil & Environmental Engineering, 2009-2011, Korea Advanced Institute of Science and Technology (KAIST), Korea, GPA: 3.73/4.3.

# B.S., Faculty of Civil Engineering, 2003-2008, Ho Chi Minh City University of Technology (HCMUT), Vietnam, GPA: 8.52/10.0, Cum Laude graduate, Silver medal for Excellent graduation.

**RESEARCH INTERESTS**

# Structural health monitoring & nondestructive testing, laser ultrasonics, experimental modal analysis & vibration testing, finite element model.

**RESEARCH EXPERIENCE**

# Researcher, Department of Aerospace Engineering, 2016-2018, Korea Advanced Institute of Science and Technology (KAIST), Korea.

# Researcher, Los Alamos National Laboratory-Chonbuk National University (LANL-CBNU) Engineering Institute Korea (CBNU), 2012-2015, Korea.

**TEACHING RESPONSIBILITY**

# Undergraduate: Mechanics of Structure

# JOURNAL PUBLICATIONS

# Ayalsew DA, Truong TC, Lee JR, JB Ihn, "Parametric optimization of pulse-echo laser ultrasonic system for inspection of thick polymer matrix composites", Structural Health Monitoring, (IF = 4.939), 2020.

# Truong TC, Ayalsew DA, Lee JR, JB Ihn, "Thermo-elastic model of epicenter displacement by laser pulse irradiated on metallic surfaces", ASME Journal of Nondestructive Evaluation, Vol. 1, No. 2, pp. 021001-021006, 2018.

# Truong TC, Lee JR, "Thickness reconstruction of nuclear power plant pipes with flow-accelerated corrosion damage using laser ultrasonic wavenumber imaging", Structural Health Monitoring, (IF = 3.536), Vol. 17, Issue 2, pp. 255-265, 2018.

# Abbas SH, Truong TC, Lee JR, "FPGA-based ultrasonic energy mapping with source removal method for damage visualization in composite structures", Advanced Composite Materials, (IF = 1.407), Vol. 26, Sup. 1, pp. 3-13, 2017.

# Truong TC, Lee JR, "SNR enhancement for composite application using multiple Doppler vibrometers based laser ultrasonic propagation imager", Optics and Lasers in Engineering, (IF = 2.769), Vol. 84, pp. 82-88, 2016.

# Truong TC, Kang DH, Lee JR, Farrar CR, "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, (IF = 1.694), Vol. 51, No. 4, pp. 332-342, 2015.

# Lee JR, Cho CM, Park CY, Truong TC, Shin HJ, Jeong HM, Flynn EB, "Spar disbond visualization in in-service composite UAV with ultrasonic propagation imager", Aerospace Science and Technology, (IF = 2.057), Vol. 45, pp. 180-185, 2015.

# Truong TC, Lee JR, "A versatile inspection system for pipe structure using ultrasonic waves propagation imager", Journal of Physics, Vol. 628, pp. 012015, 2015.

# Lee JR, Jeong HM, Truong TC, Shin HJ, Park JY, "Damage visualization of filament wound composite hydrogen fuel tank using ultrasonic propagation imager", Composites Research, Vol. 28, No. 4, pp. 143-147, 2015.

# Park B, Sohn H, Yeum CM, Truong TC, "Laser ultrasonic imaging and damage detection for a rotating structure", Structural Health Monitoring, (IF = 3.536), Vol. 12, No. 5-6, pp. 494-506, 2013.

# Truong TC, Cho S, Yun CB, Sohn H, "Finite element model updating of Canton Tower using regularization technique", Smart Structures and Systems, (IF = 1.382), Vol. 10, No. 4-5, pp. 459-470, 2012.

# CONFERENCE PROCEEDINGS

# Truong TC, Admed H, Lee JR, "Cure monitoring using long pulse and high power laser", KSAS, Jeju, Korea, 15-18 November, 2017.

# Truong TC, Ayalsew DA, Lee JR, "Thermoelastic model of epicenter laser ultrasonic", KSNT, Daegu, Korea, 25-26 May, 2017.

# Abbas SH, Truong TC, Lee JR, "FPGA-based implementation of multi-time-frame laser ultrasonic energy mapping for non-destructive evaluation applications", KSNT, Daegu, Korea, 25-26 May, 2017.

# Truong TC, Hong SC, Ayalsew DA, Lee JR, "Structural imaging through estimation of local dominant frequency of pulse-echo laser ultrasonic wave", KSNT, Daejeon, Korea, 3-4 November, 2016.

# Truong TC, Lee JR, "A sensitivity analysis of ultrasonic wavenumber imaging algorithm and its application for damage visualization of nuclear power plant pipes", KSNT, Daejeon, Korea, 3-4 November, 2016.

# Abbas SH, Truong TC, Lee JR, "FPGA-based implementation of ultrasonic energy mapping for non-destructive evaluation applications", The 8th Kyushu University-KAIST Symposium on Aerospace Engineering, Daejeon, Korea, 13-15 October 2016.

# Abbas SH, Truong TC, Lee JR, "Implementation of Ultrasonic Energy Mapping on FPGA for damage detection of composite structure", ASHMCS, Jeonju, Korea, 22-25 August, 2016.

# Truong TC, Lee JR, "Elbow pipe nondestructive testing using ultrasonic propagation imager system", KSNT, Wonju, Korea, 19-20 May, 2016.

# Truong TC, Park JY, Jang JK, Lee JR, "Live Demonstration: LDV\_UPI system for structural health monitoring of composite material", IEEE Sensors, Busan, Korea, 1-4 November, 2015.

# Truong TC, Lee JR, "Autonomous inspection of composite leading edge based on laser Doppler vibrometer Ultrasonic Propagation Imaging system", KSCM, Jeonju, Korea, 30 October, 2015.

# Truong TC, Lee JR, "Disassemble bonded composite structure using shock waves generated by a flashlamp-pumped pulsed laser", 10th JSCM-KSCM Joint Symposium on Composite Materials, Jeonju, Korea, 29 October, 2015.

# Shin HJ, Hong SC, Truong TC, Lee JR, "Advances in Smart Hangar and its real-world applications", IWSHM, Stanford University, USA, 1-3 September, 2015.

# Shin HJ, Lee JR, Abbas SH, Truong TC, "A proof-of-concept of Smart Hangar for composite aircraft", ICCM20, Copenhagen, Denmark, 19-24 July, 2015.

# Truong TC, Lee JR, "A study of laser-induced Scholte wave and damage characterization using ultrasonic wavenumber imaging”, KSAS, Gangwon, Korea, 22-24 April, 2015.

# Lee JR, Jeong HM, Choi YS, Chong SY, Abbas SH, Truong TC, "Ultrasonic propagation imaging system and its application to space launcher structures", KSPE, Changwon, Korea, December, 2014.

# Lee JR, Jeong HM, Choi YS, Chong SY, Abbas SH, Truong TC, "Development of laser ultrasonic advanced nondestructive evaluation technology for zero-defect space launcher structure", poster at Korean Mechanics, Guangzhou, Korea, October, 2014.

# Truong TC, Lee JR, Cho CM, Park CY, Shin HJ, Jeong HM, "Application of ultrasonic propagation imaging system for in-service composite wing aircraft", ASHMCS, Jeonju, Korea, 25-29 August, 2014.

# Truong TC, Lee JR, "Comparative study of laser Doppler vibrometer and capacitive air coupled transducer for laser ultrasonic propagation imaging applications ", ASHMCS, Jeonju, Korea, 25-29 August, 2014.

# Truong TC, Lee JR, "SNR enhancement technique for laser ultrasonic propagation imaging using multiple laser Doppler vibrometers and repeat scanning", KSNT, Gyeongju, Korea, 22-23 May, 2014.

# Sohn H, An YK, Park B, Truong TC, Yeum CM, Yang JY, Lee HS, "Laser ultrasonic techniques for structural health monitoring applications", CIMTEC, Montecatini Terme, Italy, 10-14 June, 2012.

# Park B, Truong TC, Yeum CM, Sohn H, "Laser ultrasonic imaging of a rotating blade", SPIE, USA, 20 April, 2012.

# Truong TC, Park B, Yeum CM, Sohn H, "A speckle noise reduction techniques for noncontact laser ultrasonic imaging of a rotating object", KKCNN, Awaji, Japan, 14-16 December, 2011.

# Truong TC, Cho S, Yun CB, "Modal identification of Guangzhou new TV tower", EESK, Jeju, Korea, 2010. Student Best Paper Award.

# PATENTS

# Sohn H, Park B, Truong TC, “Laser ultrasonic imaging of a rotating blade”, Korean Patent, (Application number 1020120084325), 27 March, 2014.

# Sohn H, Park B, Truong TC, “Laser ultrasonic imaging method and laser ultrasonic imaging device for rotational structure", US Patent (Publication number WO-2014021564-A1), 06 February, 2014.