Hoon Sohn

List of Publications by Citations

201 papers	6,467 citations	40 h-index	75 g-index
231 ext. papers	7,668 ext. citations	4.3 avg, IF	6.38 L-index

#	Paper	IF	Citations
201	Overview of Piezoelectric Impedance-Based Health Monitoring and Path Forward. *The Shock and Vibration Digest*, **2003**, 35, 451-463		681
200	Effects of environmental and operational variability on structural health monitoring. *Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences*, **2007**, 365, 539-60	3	482
199	An experimental study of temperature effect on modal parameters of the Alamosa Canyon Bridge. *Earthquake Engineering and Structural Dynamics*, **1999**, 28, 879-897	4	228
198	Time reversal active sensing for health monitoring of a composite plate. *Journal of Sound and Vibration*, **2007**, 302, 50-66	3.9	218
197	Wavelet-based active sensing for delamination detection in composite structures. *Smart Materials and Structures*, **2004**, 13, 153-160	3.4	201
196	Statistical Damage Classification Under Changing Environmental and Operational Conditions. *Journal of Intelligent Material Systems and Structures*, **2002**, 13, 561-574	2.3	197
195	Understanding a time reversal process in Lamb wave propagation. *Wave Motion*, **2009**, 46, 451-467	1.8	137
194	Visualization of hidden delamination and debonding in composites through noncontact laser ultrasonic scanning. *Composites Science and Technology*, **2014**, 100, 10-18	8.6	135
193	Delamination detection in composites through guided wave field image processing. *Composites Science and Technology*, **2011**, 71, 1250-1256	8.6	133
192	Damage Detection in Composite Plates by Using an Enhanced Time Reversal Method. *Journal of Aerospace Engineering*, **2007**, 20, 141-151	1.4	129
191	Nonlinear ultrasonic wave modulation for online fatigue crack detection. *Journal of Sound and Vibration*, **2014**, 333, 1473-1484	3.9	121
190	A framework for dimensional and surface quality assessment of precast concrete elements using BIM and 3D laser scanning. *Automation in Construction*, **2015**, 49, 225-238	9.6	118
189	Automated detection of delamination and disbond from wavefield images obtained using a scanning laser vibrometer. *Smart Materials and Structures*, **2011**, 20, 045017	3.4	117
188	Instantaneous reference-free crack detection based on polarization characteristics of piezoelectric materials. *Smart Materials and Structures*, **2007**, 16, 2375-2387	3.4	110
187	Complete noncontact laser ultrasonic imaging for automated crack visualization in a plate. *Smart Materials and Structures*, **2013**, 22, 025022	3.4	105
186	Automated dimensional quality assurance of full-scale precast concrete elements using laser scanning and BIM. *Automation in Construction*, **2016**, 72, 102-114	9.6	105
185	Combination of a Time Reversal Process and a Consecutiv Outlier Analysis for Baseline-free Damage Diagnosis. *Journal of Intelligent Material Systems and Structures*, **2007**, 18, 335-346	2.3	78

184	Locating fatigue damage using temporal signal features of nonlinear Lamb waves. *Mechanical Systems and Signal Processing*, **2015**, 60-61, 182-197	7.8	75
183	Flexible highly-effective energy harvester via crystallographic and computational control of nanointerfacial morphotropic piezoelectric thin film. *Nano Research*, **2017**, 10, 437-455	10	74
182	Impedance based damage detection under varying temperature and loading conditions. *NDT and E International*, **2011**, 44, 740-750	4.1	72
181	Damage diagnosis under environmental and operational variations using unsupervised support vector machine. *Journal of Sound and Vibration*, **2009**, 325, 224-239	3.9	72
180	A Nonlinear Acoustic Technique for Crack Detection in Metallic Structures. *Structural Health Monitoring*, **2009**, 8, 251-262	4.4	72
179	Automated quality assessment of precast concrete elements with geometry irregularities using terrestrial laser scanning. *Automation in Construction*, **2016**, 68, 170-182	9.6	71
178	Second harmonic generation at fatigue cracks by low-frequency Lamb waves: Experimental and numerical studies. *Mechanical Systems and Signal Processing*, **2018**, 99, 760-773	7.8	68
177	Impact localization in complex structures using laser-based time reversal. *Structural Health Monitoring*, **2012**, 11, 577-588	4.4	67
176	Integrated impedance and guided wave based damage detection. *Mechanical Systems and Signal Processing*, **2012**, 28, 50-62	7.8	66
175	SINGULARITY DETECTION FOR STRUCTURAL HEALTH MONITORING USING HOLDER EXPONENTS. *Mechanical Systems and Signal Processing*, **2003**, 17, 1163-1184	7.8	64
174	An outlier analysis framework for impedance-based structural health monitoring. *Journal of Sound and Vibration*, **2005**, 286, 229-250	3.9	63
173	Localization and Quantification of Concrete Spalling Defects Using Terrestrial Laser Scanning. *Journal of Computing in Civil Engineering*, **2015**, 29, 04014086	5	62
172	Automated Estimation of Reinforced Precast Concrete Rebar Positions Using Colored Laser Scan Data. *Computer-Aided Civil and Infrastructure Engineering*, **2017**, 32, 787-802	8.4	59
171	Automated dimensional quality assessment of precast concrete panels using terrestrial laser scanning. *Automation in Construction*, **2014**, 45, 163-177	9.6	58
170	Parameter estimation of the generalized extreme value distribution for structural health monitoring. *Probabilistic Engineering Mechanics*, **2006**, 21, 366-376	2.6	57
169	Reference-free fatigue crack detection using nonlinear ultrasonic modulation under various temperature and loading conditions. *Mechanical Systems and Signal Processing*, **2014**, 45, 468-478	7.8	56
168	Noncontact detection of fatigue cracks by laser nonlinear wave modulation spectroscopy (LNWMS). *NDT and E International*, **2014**, 66, 106-116	4.1	55
167	Laser lock-in thermography for detection of surface-breaking fatigue cracks on uncoated steel structures. *NDT and E International*, **2014**, 65, 54-63	4.1	54

166	Autonomous dynamic displacement estimation from data fusion of acceleration and intermittent displacement measurements. *Mechanical Systems and Signal Processing*, **2014**, 42, 194-205	7.8	54
165	Lamb wave tuning curve calibration for surface-bonded piezoelectric transducers. *Smart Materials and Structures*, **2010**, 19, 015007	3.4	54
164	An information modeling framework for bridge monitoring. *Advances in Engineering Software*, **2017**, 114, 11-31	3.6	46
163	Instantaneous delamination detection in a composite plate using a dual piezoelectric transducer network. *Composite Structures*, **2012**, 94, 3490-3499	5.3	46
162	Lamb wave mode decomposition using concentric ring and circular piezoelectric transducers. *Wave Motion*, **2011**, 48, 358-370	1.8	43
161	Numerical simulation of damage detection using laser-generated ultrasound. *Ultrasonics*, **2016**, 69, 248-58	3.5	40
160	Noncontact fatigue crack visualization using nonlinear ultrasonic modulation. *NDT and E International*, **2015**, 73, 8-14	4.1	39
159	Automatic As-Built BIM Creation of Precast Concrete Bridge Deck Panels Using Laser Scan Data. *Journal of Computing in Civil Engineering*, **2018**, 32, 04018011	5	39
158	Development of dual PZT transducers for reference-free crack detection in thin plate structures. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2010**, 57, 229-40	3.2	39
157	Instantaneous crack detection under varying temperature and static loading conditions. *Structural Control and Health Monitoring*, **2010**, 17, 730-741	4.5	37
156	Time Reversal Based Piezoelectric Transducer Self-diagnosis Under Varying Temperature. *Journal of Nondestructive Evaluation*, **2010**, 29, 75-91	2.1	35
155	Reference-Free NDT Technique for Debonding Detection in CFRP-Strengthened RC Structures. *Journal of Structural Engineering*, **2007**, 133, 1080-1091	3	33
154	An Overview of Non-Destructive Testing Methods for Integrated Circuit Packaging Inspection. *Sensors*, **2018**, 18,	3.8	32
153	Electromechanical impedance measurement from large structures using a dual piezoelectric transducer. *Journal of Sound and Vibration*, **2013**, 332, 6580-6595	3.9	31
152	Dynamic displacement estimation by fusing LDV and LiDAR measurements via smoothing based Kalman filtering. *Mechanical Systems and Signal Processing*, **2017**, 82, 339-355	7.8	31
151	Reference-Free Damage Classification Based on Cluster Analysis. *Computer-Aided Civil and Infrastructure Engineering*, **2008**, 23, 324-338	8.4	31
150	Reference-free crack detection using transfer impedances. *Journal of Sound and Vibration*, **2010**, 329, 2337-2348	3.9	29
149	Active self-sensing scheme development for structural health monitoring. *Smart Materials and Structures*, **2006**, 15, 1734-1746	3.4	29

148	Laser ultrasonic imaging and damage detection for a rotating structure. *Structural Health Monitoring*, **2013**, 12, 494-506	4.4	28
147	Statistical novelty detection within the Yeongjong suspension bridge under environmental and operational variations. *Smart Materials and Structures*, **2009**, 18, 125022	3.4	27
146	Delamination localization in wind turbine blades based on adaptive time-of-flight analysis of noncontact laser ultrasonic signals. *Nondestructive Testing and Evaluation*, **2017**, 32, 1-20	2	26
145	Line laser lock-in thermography for instantaneous imaging of cracks in semiconductor chips. *Optics and Lasers in Engineering*, **2015**, 73, 128-136	4.6	25
144	Data-driven fatigue crack quantification and prognosis using nonlinear ultrasonic modulation. *Mechanical Systems and Signal Processing*, **2018**, 109, 185-195	7.8	25
143	Fatigue crack detection using dual laser induced nonlinear ultrasonic modulation. *Optics and Lasers in Engineering*, **2018**, 110, 420-430	4.6	25
142	Active sensing using impedance-based ARX models and extreme value statistics for damage detection. *Earthquake Engineering and Structural Dynamics*, **2005**, 34, 763-785	4	25
141	A NoSQL data management infrastructure for bridge monitoring. *Smart Structures and Systems*, **2016**, 17, 669-690		25
140	Baseline-free damage visualization using noncontact laser nonlinear ultrasonics and state space geometrical changes. *Smart Materials and Structures*, **2015**, 24, 065036	3.4	24
139	An Inductively Coupled Lamb Wave Transducer. *IEEE Sensors Journal*, **2007**, 7, 295-301	4	24
138	Structural displacement estimation through multi-rate fusion of accelerometer and RTK-GPS displacement and velocity measurements. *Measurement: Journal of the International Measurement Confederation*, **2018**, 130, 223-235	4.6	23
137	Airplane hot spot monitoring using integrated impedance and guided wave measurements. *Structural Control and Health Monitoring*, **2012**, 19, 592-604	4.5	22
136	Surface flatness and distortion inspection of precast concrete elements using laser scanning technology. *Smart Structures and Systems*, **2016**, 18, 601-623		22
135	Crack detection technique for operating wind turbine blades using Vibro-Acoustic Modulation. *Structural Health Monitoring*, **2014**, 13, 660-670	4.4	21
134	Baseline-free pipeline monitoring using optical fiber□guided laser ultrasonics. *Structural Health Monitoring*, **2012**, 11, 684-695	4.4	21
133	Accelerated noncontact laser ultrasonic scanning for damage detection using combined binary search and compressed sensing. *Mechanical Systems and Signal Processing*, **2017**, 92, 315-333	7.8	20
132	Noncontact laser ultrasonic crack detection for plates with additional structural complexities. *Structural Health Monitoring*, **2013**, 12, 522-538	4.4	20
131	Development and field application of a nonlinear ultrasonic modulation technique for fatigue crack detection without reference data from an intact condition. *Smart Materials and Structures*, **2016**, 25, 095055	3.4	20

130	Continuous Line Laser Thermography for Damage Imaging of Rotating Wind Turbine Blades. *Procedia Engineering*, **2017**, 188, 225-232		19
129	Nonlinear ultrasonic modulation based failure warning for aluminum plates subject to fatigue loading. *International Journal of Fatigue*, **2018**, 114, 130-137	5	19
128	Development of a stick-and-detect wireless sensor node for fatigue crack detection. *Structural Health Monitoring*, **2017**, 16, 153-163	4.4	19
127	A Reference-Free and Non-Contact Method for Detecting and Imaging Damage in Adhesive-Bonded Structures Using Air-Coupled Ultrasonic Transducers. *Materials*, **2017**, 10,	3.5	18
126	Binding conditions for nonlinear ultrasonic generation unifying wave propagation and vibration. *Applied Physics Letters*, **2014**, 104, 214103	3.4	18
125	Reference-free impedance-based crack detection in plates. *Journal of Sound and Vibration*, **2011**, 330, 5949-5962	3.9	18
124	Wireless guided wave and impedance measurement using laser and piezoelectric transducers. *Smart Materials and Structures*, **2012**, 21, 035029	3.4	18
123	Online fatigue crack prognosis using nonlinear ultrasonic modulation. *Structural Health Monitoring*, **2019**, 18, 1889-1902	4.4	17
122	Application of Local Reference-Free Damage Detection Techniques to In Situ Bridges. *Journal of Structural Engineering*, **2014**, 140, 04013069	3	17
121	A scalable cloud-based cyberinfrastructure platform for bridge monitoring. *Structure and Infrastructure Engineering*, **2019**, 15, 82-102	2.9	16
120	A mirror-aided laser scanning system for geometric quality inspection of side surfaces of precast concrete elements. *Measurement: Journal of the International Measurement Confederation*, **2019**, 141, 420-428	4.6	15
119	Dynamic displacement estimation by fusing biased high-sampling rate acceleration and low-sampling rate displacement measurements using two-stage Kalman estimator. *Smart Structures and Systems*, **2016**, 17, 647-667		15
118	Optimal placement of precast bridge deck slabs with respect to precast girders using 3D laser scanning. *Automation in Construction*, **2018**, 86, 81-98	9.6	15
117	Development of a mixed pixel filter for improved dimension estimation using AMCW laser scanner. *ISPRS Journal of Photogrammetry and Remote Sensing*, **2016**, 119, 246-258	11.8	14
116	Fatigue crack detection using structural nonlinearity reflected on linear ultrasonic features. *Journal of Applied Physics*, **2015**, 118, 244902	2.5	14
115	Monitoring of pipelines in nuclear power plants by measuring laser-based mechanical impedance. *Smart Materials and Structures*, **2014**, 23, 065008	3.4	14
114	Automated detection and quantification of hidden voids in triplex bonding layers using active lock-in thermography. *NDT and E International*, **2015**, 74, 94-105	4.1	13
113	Remote Inspection of Internal Delamination in Wind Turbine Blades using Continuous Line Laser Scanning Thermography. *International Journal of Precision Engineering and Manufacturing - Green Technology*, **2020**, 7, 699-712	3.8	13

112	Applications of an Instantaneous Damage Detection Technique to Plates with Additional Complexities. *Journal of Nondestructive Evaluation*, **2010**, 29, 189-205	2.1	13
111	Baseline-free fatigue crack detection based on spectral correlation and nonlinear wave modulation. *Smart Materials and Structures*, **2016**, 25, 125034	3.4	13
110	Multi-spot laser lock-in thermography for real-time imaging of cracks in semiconductor chips during a manufacturing process. *Journal of Materials Processing Technology*, **2016**, 229, 94-101	5.3	12
109	Visualization of non-propagating Lamb wave modes for fatigue crack evaluation. *Journal of Applied Physics*, **2015**, 117, 114904	2.5	12
108	Reference-free crack detection under varying temperature. *KSCE Journal of Civil Engineering*, **2011**, 15, 1395-1404	1.9	12
107	Fatigue Crack Localization Using Laser Nonlinear Wave Modulation Spectroscopy (LNWMS). *Journal of the Korean Society for Nondestructive Testing*, **2014**, 34, 419-427	0	12
106	Monitoring and instantaneous evaluation of fatigue crack using integrated passive and active laser thermography. *Optics and Lasers in Engineering*, **2019**, 119, 9-17	4.6	11
105	Continuous-wave line laser thermography for monitoring of rotating wind turbine blades. *Structural Health Monitoring*, **2019**, 18, 1010-1021	4.4	11
104	Data-driven physical parameter estimation for lumped mass structures from a single point actuation test. *Journal of Sound and Vibration*, **2013**, 332, 4390-4402	3.9	11
103	In situ measurement of structural mass, stiffness, and damping using a reaction force actuator and a laser Doppler vibrometer. *Smart Materials and Structures*, **2013**, 22, 085004	3.4	11
102	Piezoelectric transducer self-diagnosis under changing environmental and structural conditions. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2010**, 57, 2017-27	3.2	11
101	A comparison of 1D and 3D laser vibrometry measurements of Lamb waves **2010**,		11
100	A wireless guided wave excitation technique based on laser and optoelectronics. *Smart Structures and Systems*, **2010**, 6, 749-765		11
99	Mechanical properties estimation of additively manufactured metal components using femtosecond laser ultrasonics and laser polishing. *International Journal of Machine Tools and Manufacture*, **2021**, 166, 103745	9.4	11
98	Automatic measurement and warning of tension force reduction in a PT tendon using eddy current sensing. *NDT and E International*, **2017**, 87, 93-99	4.1	10
97	Dual-mode wireless power transfer module for smartphone application **2015**,		10
96	Silicon wafer crack detection using nonlinear ultrasonic modulation induced by high repetition rate pulse laser. *Optics and Lasers in Engineering*, **2020**, 129, 106074	4.6	10
95	Development of a High Precision Displacement Measurement System by Fusing a Low Cost RTK-GPS Sensor and a Force Feedback Accelerometer for Infrastructure Monitoring. *Sensors*, **2017**, 17,	3.8	10

94	Investigating electro-mechanical signals from collocated piezoelectric wafers for the reference-free damage diagnosis of a plate. *Smart Materials and Structures*, **2011**, 20, 065001	3.4	10
93	A Real-Time, Non-Contact Method for In-Line Inspection of Oil and Gas Pipelines Using Optical Sensor Array. *Sensors*, **2019**, 19,	3.8	9
92	Fatigue crack detection in rotating steel shafts using noncontact ultrasonic modulation measurements. *Engineering Structures*, **2019**, 196, 109293	4.7	9
91	Micro-crack detection with nonlinear wave modulation technique and its application to loaded cracks. *NDT and E International*, **2019**, 107, 102132	4.1	9
90	Fatigue crack localization using noncontact laser ultrasonics and state space attractors. *Journal of the Acoustical Society of America*, **2015**, 138, 890-8	2.2	9
89	Wireless ultrasonic wavefield imaging via laser for hidden damage detection inside a steel box girder bridge. *Smart Materials and Structures*, **2014**, 23, 095019	3.4	9
88	Reference-free damage detection, localization, and quantification in composites. *Journal of the Acoustical Society of America*, **2013**, 133, 3838-45	2.2	9
87	Necessary Conditions for Nonlinear Ultrasonic Modulation Generation Given a Localized Fatigue Crack in a Plate-Like Structure. *Materials*, **2017**, 10,	3.5	9
86	Holder exponent analysis for discontinuity detection. *Structural Engineering and Mechanics*, **2004**, 17, 409-428		9
85	Continuous fatigue crack length estimation for aluminum 6061-T6 plates with a notch. *Mechanical Systems and Signal Processing*, **2019**, 120, 356-364	7.8	9
84	Laser active thermography for debonding detection in FRP retrofitted concrete structures. *NDT and E International*, **2020**, 114, 102285	4.1	8
83	Accelerated cable-stayed bridge construction using terrestrial laser scanning. *Automation in Construction*, **2020**, 117, 103269	9.6	8
82	A reference-free micro defect visualization using pulse laser scanning thermography and image processing. *Measurement Science and Technology*, **2016**, 27, 085601	2	8
81	Study on effect of laser-induced ablation for Lamb waves in a thin plate. *Ultrasonics*, **2019**, 91, 121-128	3.5	8
80	Development of a fiber-guided laser ultrasonic system resilient to high temperature and gamma radiation for nuclear power plant pipe monitoring. *Measurement Science and Technology*, **2013**, 24, 085003	2	8
79	Reference-free delamination detection using Lamb waves. *Structural Control and Health Monitoring*, **2013**, 21, n/a-n/a	4.5	8
78	High efficient rectenna using a harmonic rejection low pass filter for RF based wireless power transmission **2014**,		8
77	Piezoelectric transducers for assessing and monitoring civil infrastructures **2014**, 86-120		8

76	Piezoelectric Transducer Diagnostics via Linear Reciprocity for Guided Wave Structural Health Monitoring. *AIAA Journal*, **2011**, 49, 621-629	2.1	8
75	Temperature Independent Damage Detection in Plates Using Redundant Signal Measurements. *Journal of Nondestructive Evaluation*, **2011**, 30, 106-116	2.1	8
74	Continuous fatigue crack monitoring without baseline data. *Fatigue and Fracture of Engineering Materials and Structures*, **2008**, 31, 644-659	3	8
73	Damage detection for pipeline structures using optic-based active sensing. *Smart Structures and Systems*, **2012**, 9, 461-472		8
72	Bridge displacement estimation by fusing accelerometer and strain gauge measurements. *Structural Control and Health Monitoring*, **2021**, 28, e2733	4.5	8
71	Nonlinear spectral correlation for fatigue crack detection under noisy environments. *Journal of Sound and Vibration*, **2017**, 400, 305-316	3.9	7
70	Damage detection using sideband peak count in spectral correlation domain. *Journal of Sound and Vibration*, **2017**, 411, 20-33	3.9	7
69	Experimental study on identifying cracks of increasing size using ultrasonic excitation. *Structural Health Monitoring*, **2012**, 11, 95-108	4.4	7
68	Steel bridge corrosion inspection with combined vision and thermographic images. *Structural Health Monitoring*,147592172198940	4.4	7
67	Real-time structural displacement estimation by fusing asynchronous acceleration and computer vision measurements. *Computer-Aided Civil and Infrastructure Engineering*,	8.4	7
66	Development of a tunable low-frequency vibration energy harvester and its application to a self-contained wireless fatigue crack detection sensor. *Structural Health Monitoring*, **2019**, 18, 920-933	4.4	6
65	A data management infrastructure for bridge monitoring **2015**,		6
64	Pipe Defect Visualization and Quantification Using Longitudinal Ultrasonic Modes. *International Journal of Structural Stability and Dynamics*, **2014**, 14, 1440008	1.9	6
63	Introduction to sensing for structural performance assessment and health monitoring **2014**, 1-22		6
62	Online Stress Monitoring Technique Based on Lamb-wave Measurements and a Convolutional Neural Network Under Static and Dynamic Loadings. *Experimental Mechanics*, **2020**, 60, 171-179	2.6	6
61	Evaluation of material degradation using phased array ultrasonic technique with full matrix capture. *Engineering Failure Analysis*, **2021**, 120, 105118	3.2	6
60	Porosity inspection in directed energy deposition additive manufacturing based on transient thermoreflectance measurement. *NDT and E International*, **2021**, 122, 102491	4.1	6
59	Development and full-scale dynamic test of a combined system of heterogeneous laser sensors for structural displacement measurement. *Smart Materials and Structures*, **2016**, 25, 065015	3.4	5

58	Integrated impedance and guided wave based damage detection under temperature variation **2011**,		5
57	Laser based structural health monitoring for civil, mechanical, and aerospace systems **2012**,		5
56	Fundamentals of Nonlinear Acoustical Techniques and Sideband Peak Count **2019**, 1-88		5
55	Development of high-accuracy edge line estimation algorithms using terrestrial laser scanning. *Automation in Construction*, **2019**, 101, 59-71	9.6	4
54	Development of nonlinear spectral correlation between ultrasonic modulation components. *NDT and E International*, **2017**, 91, 120-128	4.1	4
53	Subspace model identification of guided wave propagation in metallic plates. *Smart Materials and Structures*, **2014**, 23, 035006	3.4	4
52	Design of copper/carbon-coated fiber Bragg grating acoustic sensor net for integrated health monitoring of nuclear power plant. *Nuclear Engineering and Design*, **2011**, 241, 1889-1898	1.8	4
51	Detection and localization of fatigue crack using nonlinear ultrasonic three-wave mixing technique. *International Journal of Fatigue*, **2022**, 155, 106582	5	4
50	A cloud-based information repository for bridge monitoring applications **2016**,		4
49	Reconstruction of laser ultrasonic wavefield images from reduced sparse measurements using compressed sensing aided super-resolution **2017**,		3
48	Wireless power and data transfer system for smart bridge sensors **2016**,		3
47	Novel multi-coil resonator design for wireless power transfer through reinforced concrete structure with rebar array **2017**,		3
46	Laser Lock-In Thermography for Fatigue Crack Detection. *Key Engineering Materials*, **2013**, 558, 76-83	0.4	3
45	Pipeline monitoring using an integrated MFC/FBG system **2011**,		3
44	Delamination detection in a composite plate using a dual piezoelectric transducer network **2011**,		3
43	IN SITU DETECTION OF SURFACE-MOUNTED PZT TRANSDUCER DEFECTS USING LINEAR RECIPROCITY **2010**,		3
42	Instantaneous crack detection using dual PZT transducers **2008**,		3
41	Operation of battery-less and wireless sensor using magnetic resonance based wireless power transfer through concrete. *Smart Structures and Systems*, **2016**, 17, 631-646		3

40	Accelerated damage visualization using binary search with fixed pitch-catch distance laser ultrasonic scanning. *Smart Materials and Structures*, **2017**, 26, 075005	3.4	2
39	Non-contact visualization of nonlinear ultrasonic modulation for reference-free fatigue crack detection **2014**,		2
38	Full-Scale Application of a Dimensional Quality Assessment Technique to Precast Concrete Panels using Terrestrial Laser Scanning **2014**,		2
37	Autonomous mobile lock-in thermography system for detecting and quantifying voids in liquefied natural gas cargo tank second barrier. *Structural Health Monitoring*, **2017**, 16, 276-290	4.4	2
36	Special Section Guest Editorial: Structural Health Monitoring: Use of Guided Waves and/or Nonlinear Acoustic Techniques. *Optical Engineering*, **2015**, 55, 011001	1.1	2
35	Sensing solutions for assessing and monitoring of nuclear power plants (NPPs) **2014**, 605-637		2
34	Damage detection technique by measuring laser-based mechanical impedance **2014**,		2
33	Mechanical impedance measurement and damage detection using noncontact laser ultrasound. *Optics Letters*, **2014**, 39, 3130-3	3	2
32	Active Dimensional Quality Assessment of Precast Concrete Using 3D Laser Scanning **2013**,		2
31	Investigating mode-converted Lamb wave signals induced by a notch on a beam in the frequency domain **2011**,		2
30	Finite Element Model Updating of a PSC Box Girder Bridge Using Ambient Vibration Test. *Advanced Materials Research*, **2010**, 168-170, 2263-2270	0.5	2
29	An optical fiber guided ultrasonic excitation and sensing system for online monitoring of nuclear power plants **2012**,		2
28	Frequency domain reference-free crack detection using transfer impedances in plate structures **2009**,		2
27	Statistical Pattern Recognition **2008**,		2
26	Cubic nonlinearity parameter measurement and material degradation detection using nonlinear ultrasonic three-wave mixing.. *Ultrasonics*, **2021**, 121, 106670	3.5	2
25	Laser based impedance measurement for pipe corrosion and bolt-loosening detection. *Smart Structures and Systems*, **2015**, 15, 41-55		2
24	Dynamic Displacement Estimation for Long-Span Bridges Using Acceleration and Heuristically Enhanced Displacement Measurements of Real-Time Kinematic Global Navigation System. *Sensors*, **2020**, 20,	3.8	2
23	Non-contact laser ultrasonics for SHM in aerospace structures **2016**, 325-352		2

22	Structural displacement estimation by fusing vision camera and accelerometer using hybrid computer vision algorithm and adaptive multi-rate Kalman filter. *Automation in Construction*, **2022**, 140, 104338	9.6	2
21	Detection of fatigue crack on a rotating steel shaft using air-coupled nonlinear ultrasonic modulation **2015**,		1
20	Laser lock-in thermography for fatigue crack detection in an uncoated metallic structure **2013**,		1
19	Impact localization in an aircraft fuselage using laser based time reversal **2011**,		1
18	Laser ultrasonic imaging of a rotating blade **2012**,		1
17	Isolation of crack-induced standing wave energy from laser scanned ultrasonic image **2012**,		1
16	Signal Processing for Structural Health Monitoring **2010**,		1
15	Statistical Pattern Recognition Paradigm Applied to Defect Detection in Composite Plates **2005**, 293-303		1
14	Estimation of Silicon Wafer Coating Thickness Using Ultrasound Generated by Femtosecond Laser. *Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems*, **2021**, 4,	0.9	1
13	Development of a 3-DOF Structural Displacement Sensor Based on a Two-Stage Kalman Filter. *Conference Proceedings of the Society for Experimental Mechanics*, **2019**, 139-141	0.3	1
12	A Fatigue Crack Detection Methodology. *KAIST Research Series*, **2015**, 233-253		1
11	A distributed cloud-based cyberinfrastructure framework for integrated bridge monitoring **2017**,		1
10	Femtosecond laser ultrasonic inspection of a moving object and its application to estimation of silicon wafer coating thickness. *Optics and Lasers in Engineering*, **2022**, 148, 106778	4.6	1
9	Online melt pool depth estimation in laser metal deposition using a coaxial thermography system. *Journal of Laser Applications*, **2022**, 34, 022001	2.1	1
8	Ultrasonic Lamb wave mixing based fatigue crack detection using a deep learning model and higher-order spectral analysis. *International Journal of Fatigue*, **2022**, 107028	5	1
7	Real-time porosity reduction during metal directed energy deposition using a pulse laser. *Journal of Materials Science and Technology*, **2022**, 116, 214-223	9.1	0
6	Ultrafast nonlinear ultrasonic measurement using femtosecond laser and modified lock-in detection. *Optics and Lasers in Engineering*, **2022**, 150, 106844	4.6	0
5	Remote guided wave imaging using wireless PZT excitation and laser vibrometer scanning for local bridge monitoring. *Bridge Maintenance, Safety and Management*, **2012**, 731-736		0

4	Noncontact Nonlinear Ultrasonic Wave Modulation for Fatigue Crack and Delamination Detection **2019**, 661-697		0
3	Automated visualization of steel structure coating thickness using line laser scanning thermography. *Automation in Construction*, **2022**, 139, 104267	9.6	0
2	Innovative Technologies for Structural Health Monitoring of SFTs: Combination of InfraRed Thermography with Mixed Reality. *Lecture Notes in Civil Engineering*, **2022**, 922-928	0.3	
1	Development of a High Accuracy and High Sampling Rate Displacement Sensor for Civil Engineering Structures Monitoring. *Lecture Notes in Civil Engineering*, **2018**, 62-70	0.3	