Hoon Sohn

List of Publications by Year
in descending order

222 papers	8,786 citations	53794 45 h-index	51608 86 g-index
231 all docs	231 docs citations	231 times ranked	4470 citing authors

#	Article	IF	Citations
1	Overview of Piezoelectric Impedance-Based Health Monitoring and Path Forward. The Shock and Vibration Digest, 2003, 35, 451-463.	6.2	850
2	Effects of environmental and operational variability on structural health monitoring. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2007, 365, 539-560.	3.4	588
3	An experimental study of temperature effect on modal parameters of the Alamosa Canyon Bridge. Earthquake Engineering and Structural Dynamics, 1999, 28, 879-897.	4.4	273
4	Time reversal active sensing for health monitoring of a composite plate. Journal of Sound and Vibration, 2007, 302, 50-66.	3.9	266
5	Wavelet-based active sensing for delamination detection in composite structures. Smart Materials and Structures, 2004, 13, 153-160.	3.5	255
6	Statistical Damage Classification Under Changing Environmental and Operational Conditions. Journal of Intelligent Material Systems and Structures, 2002, 13, 561-574.	2.5	244
7	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.	9.8	175
8	Visualization of hidden delamination and debonding in composites through noncontact laser ultrasonic scanning. Composites Science and Technology, 2014, 100, 10-18.	7.8	171
9	Nonlinear ultrasonic wave modulation for online fatigue crack detection. Journal of Sound and Vibration, 2014, 333, 1473-1484.	3.9	169
10	Automated dimensional quality assurance of full-scale precast concrete elements using laser scanning and BIM. Automation in Construction, 2016, 72, 102-114.	9.8	166
11	Understanding a time reversal process in Lamb wave propagation. Wave Motion, 2009, 46, 451-467.	2.0	160
12	Delamination detection in composites through guided wave field image processing. Composites Science and Technology, 2011, 71, 1250-1256.	7.8	156
13	Damage Detection in Composite Plates by Using an Enhanced Time Reversal Method. Journal of Aerospace Engineering, 2007, 20, 141-151.	1.4	149
14	Automated detection of delamination and disbond from wavefield images obtained using a scanning laser vibrometer. Smart Materials and Structures, 2011, 20, 045017.	3.5	147
15	Complete noncontact laser ultrasonic imaging for automated crack visualization in a plate. Smart Materials and Structures, 2013, 22, 025022.	3.5	139
16	Instantaneous reference-free crack detection based on polarization characteristics of piezoelectric materials. Smart Materials and Structures, 2007, 16, 2375-2387.	3.5	132
17	Second harmonic generation at fatigue cracks by low-frequency Lamb waves: Experimental and numerical studies. Mechanical Systems and Signal Processing, 2018, 99, 760-773.	8.0	112
18	Automated quality assessment of precast concrete elements with geometry irregularities using terrestrial laser scanning. Automation in Construction, 2016, 68, 170-182.	9.8	109

#	Article	IF	Citations
19	Automated dimensional quality assessment of precast concrete panels using terrestrial laser scanning. Automation in Construction, 2014, 45, 163-177.	9.8	97
20	Locating fatigue damage using temporal signal features of nonlinear Lamb waves. Mechanical Systems and Signal Processing, 2015, 60-61, 182-197.	8.0	93
21	Automated Estimation of Reinforced Precast Concrete Rebar Positions Using Colored Laser Scan Data. Computer-Aided Civil and Infrastructure Engineering, 2017, 32, 787-802.	9.8	93
22	A Nonlinear Acoustic Technique for Crack Detection in Metallic Structures. Structural Health Monitoring, 2009, 8, 251-262.	7.5	92
23	Damage diagnosis under environmental and operational variations using unsupervised support vector machine. Journal of Sound and Vibration, 2009, 325, 224-239.	3.9	88
24	Impedance based damage detection under varying temperature and loading conditions. NDT and E International, 2011, 44, 740-750.	3.7	87
25	Noncontact detection of fatigue cracks by laser nonlinear wave modulation spectroscopy (LNWMS). NDT and E International, 2014, 66, 106-116.	3.7	87
26	Flexible highly-effective energy harvester via crystallographic and computational control of nanointerfacial morphotropic piezoelectric thin film. Nano Research, 2017, 10, 437-455.	10.4	86
27	Localization and Quantification of Concrete Spalling Defects Using Terrestrial Laser Scanning. Journal of Computing in Civil Engineering, 2015, 29, .	4.7	85
28	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.	2.5	83
29	Integrated impedance and guided wave based damage detection. Mechanical Systems and Signal Processing, 2012, 28, 50-62.	8.0	81
30	An outlier analysis framework for impedance-based structural health monitoring. Journal of Sound and Vibration, 2005, 286, 229-250.	3.9	78
31	Autonomous dynamic displacement estimation from data fusion of acceleration and intermittent displacement measurements. Mechanical Systems and Signal Processing, 2014, 42, 194-205.	8.0	78
32	Impact localization in complex structures using laser-based time reversal. Structural Health Monitoring, 2012, 11, 577-588.	7.5	77
33	An Overview of Non-Destructive Testing Methods for Integrated Circuit Packaging Inspection. Sensors, 2018, 18, 1981.	3.8	77
34	Reference-free fatigue crack detection using nonlinear ultrasonic modulation under various temperature and loading conditions. Mechanical Systems and Signal Processing, 2014, 45, 468-478.	8.0	74
35	Laser lock-in thermography for detection of surface-breaking fatigue cracks on uncoated steel structures. NDT and E International, 2014, 65, 54-63.	3.7	73
36	An information modeling framework for bridge monitoring. Advances in Engineering Software, 2017, 114, 11-31.	3.8	72

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37	SINGULARITY DETECTION FOR STRUCTURAL HEALTH MONITORING USING HOLDER EXPONENTS. Mechanical Systems and Signal Processing, 2003, 17, 1163-1184.	8.0	71
38	Parameter estimation of the generalized extreme value distribution for structural health monitoring. Probabilistic Engineering Mechanics, 2006, 21, 366-376.	2.7	66
39	Lamb wave tuning curve calibration for surface-bonded piezoelectric transducers. Smart Materials and Structures, 2010, 19, 015007.	3.5	62
40	Automatic As-Built BIM Creation of Precast Concrete Bridge Deck Panels Using Laser Scan Data. Journal of Computing in Civil Engineering, 2018, 32, .	4.7	55
41	Numerical simulation of damage detection using laser-generated ultrasound. Ultrasonics, 2016, 69, 248-258.	3.9	54
42	Lamb wave mode decomposition using concentric ring and circular piezoelectric transducers. Wave Motion, 2011, 48, 358-370.	2.0	53
43	Instantaneous delamination detection in a composite plate using a dual piezoelectric transducer network. Composite Structures, 2012, 94, 3490-3499.	5.8	53
44	Noncontact fatigue crack visualization using nonlinear ultrasonic modulation. NDT and E International, 2015, 73, 8-14.	3.7	48
45	Dynamic displacement estimation by fusing LDV and LiDAR measurements via smoothing based Kalman filtering. Mechanical Systems and Signal Processing, 2017, 82, 339-355.	8.0	47
46	Data-driven fatigue crack quantification and prognosis using nonlinear ultrasonic modulation. Mechanical Systems and Signal Processing, 2018, 109, 185-195.	8.0	47
47	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.	5.0	45
48	Development of dual PZT transducers for reference-free crack detection in thin plate structures. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 229-240.	3.0	44
49	Fatigue crack detection using dual laser induced nonlinear ultrasonic modulation. Optics and Lasers in Engineering, 2018, 110, 420-430.	3.8	44
50	Laser ultrasonic imaging and damage detection for a rotating structure. Structural Health Monitoring, 2013, 12, 494-506.	7.5	43
51	Realâ€time structural displacement estimation by fusing asynchronous acceleration and computer vision measurements. Computer-Aided Civil and Infrastructure Engineering, 2022, 37, 688-703.	9.8	41
52	Reference-Free NDT Technique for Debonding Detection in CFRP-Strengthened RC Structures. Journal of Structural Engineering, 2007, 133, 1080-1091.	3.4	40
53	Time Reversal Based Piezoelectric Transducer Self-diagnosis Under Varying Temperature. Journal of Nondestructive Evaluation, 2010, 29, 75-91.	2.4	40
54	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.	13.4	40

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55	Surface flatness and distortion inspection of precast concrete elements using laser scanning technology. Smart Structures and Systems, 2016, 18, 601-623.	1.9	40
56	Active self-sensing scheme development for structural health monitoring. Smart Materials and Structures, 2006, 15, 1734-1746.	3.5	39
57	Instantaneous crack detection under varying temperature and static loading conditions. Structural Control and Health Monitoring, 2010, 17, 730-741.	4.0	39
58	Electromechanical impedance measurement from large structures using a dual piezoelectric transducer. Journal of Sound and Vibration, 2013, 332, 6580-6595.	3.9	39
59	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.	2.1	38
60	A NoSQL data management infrastructure for bridge monitoring. Smart Structures and Systems, 2016, 17, 669-690.	1.9	38
61	Referenceâ€Free Damage Classification Based on Cluster Analysis. Computer-Aided Civil and Infrastructure Engineering, 2008, 23, 324-338.	9.8	37
62	Statistical novelty detection within the Yeongjong suspension bridge under environmental and operational variations. Smart Materials and Structures, 2009, 18, 125022.	3.5	36
63	Reference-free crack detection using transfer impedances. Journal of Sound and Vibration, 2010, 329, 2337-2348.	3.9	36
64	Nonlinear ultrasonic modulation based failure warning for aluminum plates subject to fatigue loading. International Journal of Fatigue, 2018, 114, 130-137.	5.7	36
65	Baseline-free damage visualization using noncontact laser nonlinear ultrasonics and state space geometrical changes. Smart Materials and Structures, 2015, 24, 065036.	3.5	35
66	An Inductively Coupled Lamb Wave Transducer. IEEE Sensors Journal, 2007, 7, 295-301.	4.7	34
67	Bridge displacement estimation by fusing accelerometer and strain gauge measurements. Structural Control and Health Monitoring, 2021, 28, e2733.	4.0	34
68	Line laser lock-in thermography for instantaneous imaging of cracks in semiconductor chips. Optics and Lasers in Engineering, 2015, 73, 128-136.	3.8	33
69	Accelerated noncontact laser ultrasonic scanning for damage detection using combined binary search and compressed sensing. Mechanical Systems and Signal Processing, 2017, 92, 315-333.	8.0	32
70	Crack detection technique for operating wind turbine blades using Vibro-Acoustic Modulation. Structural Health Monitoring, 2014, 13, 660-670.	7.5	31
71	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.	5.0	31
72	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.	9.8	31

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73	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.	3.5	30
74	Continuous Line Laser Thermography for Damage Imaging of Rotating Wind Turbine Blades. Procedia Engineering, 2017, 188, 225-232.	1.2	30
75	Optimal placement of precast bridge deck slabs with respect to precast girders using 3D laser scanning. Automation in Construction, 2018, 86, 81-98.	9.8	30
76	Binding conditions for nonlinear ultrasonic generation unifying wave propagation and vibration. Applied Physics Letters, 2014, 104, .	3.3	28
77	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.	4.9	27
78	Active sensing using impedance-based ARX models and extreme value statistics for damage detection. Earthquake Engineering and Structural Dynamics, 2005, 34, 763-785.	4.4	26
79	Online fatigue crack prognosis using nonlinear ultrasonic modulation. Structural Health Monitoring, 2019, 18, 1889-1902.	7.5	26
80	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.	1.9	26
81	Airplane hot spot monitoring using integrated impedance and guided wave measurements. Structural Control and Health Monitoring, 2012, 19, 592-604.	4.0	25
82	Noncontact laser ultrasonic crack detection for plates with additional structural complexities. Structural Health Monitoring, 2013, 12, 522-538.	7.5	25
83	Development of a â€œstick-and-detectâ€•wireless sensor node for fatigue crack detection. Structural Health Monitoring, 2017, 16, 153-163.	7.5	24
84	Accelerated cable-stayed bridge construction using terrestrial laser scanning. Automation in Construction, 2020, 117, 103269.	9.8	23
85	Baseline-free pipeline monitoring using optical fiberâ€“guided laser ultrasonics. Structural Health Monitoring, 2012, 11, 684-695.	7.5	22
86	Continuous-wave line laser thermography for monitoring of rotating wind turbine blades. Structural Health Monitoring, 2019, 18, 1010-1021.	7.5	22
87	A scalable cloud-based cyberinfrastructure platform for bridge monitoring. Structure and Infrastructure Engineering, 2019, 15, 82-102.	3.7	22
88	Baseline-free fatigue crack detection based on spectral correlation and nonlinear wave modulation. Smart Materials and Structures, 2016, 25, 125034.	3.5	21
89	A Reference-Free and Non-Contact Method for Detecting and Imaging Damage in Adhesive-Bonded Structures Using Air-Coupled Ultrasonic Transducers. Materials, 2017, 10, 1402.	2.9	21
90	A Real-Time, Non-Contact Method for In-Line Inspection of Oil and Gas Pipelines Using Optical Sensor Array. Sensors, 2019, 19, 3615.	3.8	21

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91	Fatigue crack detection in rotating steel shafts using noncontact ultrasonic modulation measurements. Engineering Structures, 2019, 196, 109293.	5.3	21
92	Wireless guided wave and impedance measurement using laser and piezoelectric transducers. Smart Materials and Structures, 2012, 21, 035029.	3.5	20
93	Micro-crack detection with nonlinear wave modulation technique and its application to loaded cracks. NDT and E International, 2019, 107, 102132.	3.7	20
94	Silicon wafer crack detection using nonlinear ultrasonic modulation induced by high repetition rate pulse laser. Optics and Lasers in Engineering, 2020, 129, 106074.	3.8	20
95	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.	11.1	19
96	Automatic measurement and warning of tension force reduction in a PT tendon using eddy current sensing. NDT and E International, 2017, 87, 93-99.	3.7	19
97	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, 2745.	3.8	19
98	Reference-free impedance-based crack detection in plates. Journal of Sound and Vibration, 2011, 330, 5949-5962.	3.9	18
99	Monitoring of pipelines in nuclear power plants by measuring laser-based mechanical impedance. Smart Materials and Structures, 2014, 23, 065008.	3.5	18
100	Application of Local Reference-Free Damage Detection Techniques to In Situ Bridges. Journal of Structural Engineering, 2014, 140, .	3.4	18
101	Fatigue crack detection using structural nonlinearity reflected on linear ultrasonic features. Journal of Applied Physics, 2015, 118, .	2.5	18
102	Dual-mode wireless power transfer module for smartphone application. , 2015, , .		18
103	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.	6.3	18
104	Monitoring and instantaneous evaluation of fatigue crack using integrated passive and active laser thermography. Optics and Lasers in Engineering, 2019, 119, 9-17.	3.8	18
105	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.	2.0	18
106	Detection and localization of fatigue crack using nonlinear ultrasonic three-wave mixing technique. International Journal of Fatigue, 2022, 155, 106582.	5.7	18
107	Piezoelectric transducers for assessing and monitoring civil infrastructures. , 2014, , 86-120.		17
108	Study on effect of laser-induced ablation for Lamb waves in a thin plate. Ultrasonics, 2019, 91, 121-128.	3.9	17

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109	Applications of an Instantaneous Damage Detection Technique toÂPlates with Additional Complexities. Journal of Nondestructive Evaluation, 2010, 29, 189-205.	2.4	16
110	Automated detection and quantification of hidden voids in triplex bonding layers using active lock-in thermography. NDT and E International, 2015, 74, 94-105.	3.7	16
111	Fatigue Crack Localization Using Laser Nonlinear Wave Modulation Spectroscopy (LNWMS). Journal of the Korean Society for Nondestructive Testing, 2014, 34, 419-427.	0.2	16
112	Piezoelectric transducer self-diagnosis under changing environmental and structural conditions. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 2017-2027.	3.0	15
113	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	15
114	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.	3.5	15
115	Nonlinear spectral correlation for fatigue crack detection under noisy environments. Journal of Sound and Vibration, 2017, 400, 305-316.	3.9	15
116	Damage detection using sideband peak count in spectral correlation domain. Journal of Sound and Vibration, 2017, 411, 20-33.	3.9	15
117	Development of high-accuracy edge line estimation algorithms using terrestrial laser scanning. Automation in Construction, 2019, 101, 59-71.	9.8	15
118	Steel bridge corrosion inspection with combined vision and thermographic images. Structural Health Monitoring, 2021, 20, 3424-3435.	7.5	15
119	Porosity inspection in directed energy deposition additive manufacturing based on transient thermoreflectance measurement. NDT and E International, 2021, 122, 102491.	3.7	15
120	A comparison of 1D and 3D laser vibrometry measurements of Lamb waves. , 2010, , .		14
121	Necessary Conditions for Nonlinear Ultrasonic Modulation Generation Given a Localized Fatigue Crack in a Plate-Like Structure. Materials, 2017, 10, 248.	2.9	14
122	Continuous fatigue crack length estimation for aluminum 6061-T6 plates with a notch. Mechanical Systems and Signal Processing, 2019, 120, 356-364.	8.0	14
123	Fundamentals of Nonlinear Acoustical Techniques and Sideband Peak Count. , 2019, , 1-88.		14
124	Evaluation of material degradation using phased array ultrasonic technique with full matrix capture. Engineering Failure Analysis, 2021, 120, 105118.	4.0	14
125	Noncontact cable tension force estimation using an integrated vision and inertial measurement system. Measurement: Journal of the International Measurement Confederation, 2022, 199, 111532.	5.0	14
126	Reference-free crack detection under varying temperature. KSCE Journal of Civil Engineering, 2011, 15, 1395-1404.	1.9	13

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127	Fatigue crack localization using noncontact laser ultrasonics and state space attractors. Journal of the Acoustical Society of America, 2015, 138, 890-898.	1.1	13
128	Laser active thermography for debonding detection in FRP retrofitted concrete structures. NDT and E International, 2020, 114, 102285.	3.7	13
129	Real-time porosity reduction during metal directed energy deposition using a pulse laser. Journal of Materials Science and Technology, 2022, 116, 214-223.	10.7	13
130	Visualization of non-propagating Lamb wave modes for fatigue crack evaluation. Journal of Applied Physics, 2015, 117, .	2.5	12
131	A reference-free micro defect visualization using pulse laser scanning thermography and image processing. Measurement Science and Technology, 2016, 27, 085601.	2.6	12
132	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.	3.8	12
133	Cubic nonlinearity parameter measurement and material degradation detection using nonlinear ultrasonic three-wave mixing. Ultrasonics, 2022, 121, 106670.	3.9	12
134	Ultrasonic Lamb wave mixing based fatigue crack detection using a deep learning model and higher-order spectral analysis. International Journal of Fatigue, 2022, 163, 107028.	5.7	12
135	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.	2.6	11
136	Reference-free delamination detection using Lamb waves. Structural Control and Health Monitoring, 2013, 21, n/a-n/a.	4.0	11
137	High efficient rectenna using a harmonic rejection low pass filter for RF based wireless power transmission. , 2014, , .		11
138	Wireless ultrasonic wavefield imaging via laser for hidden damage detection inside a steel box girder bridge. Smart Materials and Structures, 2014, 23, 095019.	3.5	11
139	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.	7.5	11
140	A wireless guided wave excitation technique based on laser and optoelectronics. Smart Structures and Systems, 2010, 6, 749-765.	1.9	11
141	Investigating electro-mechanical signals from collocated piezoelectric wafers for the reference-free damage diagnosis of a plate. Smart Materials and Structures, 2011, 20, 065001.	3.5	10
142	Introduction to sensing for structural performance assessment and health monitoring. , 2014, , 1-22.		10
143	Holder exponent analysis for discontinuity detection. Structural Engineering and Mechanics, 2004, 17, 409-428.	1.0	10
144	Damage detection for pipeline structures using optic-based active sensing. Smart Structures and Systems, 2012, 9, 461-472.	1.9	10

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145	Continuous fatigue crack monitoring without baseline data. Fatigue and Fracture of Engineering Materials and Structures, 2008, 31, 644-659.	3.4	9
146	Piezoelectric Transducer Diagnostics via Linear Reciprocity for Guided Wave Structural Health Monitoring. AIAA Journal, 2011, 49, 621-629.	2.6	9
147	Temperature Independent Damage Detection in Plates Using Redundant Signal Measurements. Journal of Nondestructive Evaluation, 2011, 30, 106-116.	2.4	9
148	Experimental study on identifying cracks of increasing size using ultrasonic excitation. Structural Health Monitoring, 2012, 11, 95-108.	7.5	9
149	Reference-free damage detection, localization, and quantification in composites. Journal of the Acoustical Society of America, 2013, 133, 3838-3845.	1.1	9
150	Pipe Defect Visualization and Quantification Using Longitudinal Ultrasonic Modes. International Journal of Structural Stability and Dynamics, 2014, 14, 1440008.	2.4	9
151	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.	3.5	9
152	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.	1.7	8
153	A data management infrastructure for bridge monitoring. , 2015, , .		8
154	Development of nonlinear spectral correlation between ultrasonic modulation components. NDT and E International, 2017, 91, 120-128.	3.7	7
155	Dynamic Displacement Estimation for Long-Span Bridges Using Acceleration and Heuristically Enhanced Displacement Measurements of Real-Time Kinematic Global Navigation System. Sensors, 2020, 20, 5092.	3.8	7
156	Laser based structural health monitoring for civil, mechanical, and aerospace systems. , 2012, , .		6
157	Accelerated damage visualization using binary search with fixed pitch-catch distance laser ultrasonic scanning. Smart Materials and Structures, 2017, 26, 075005.	3.5	6
158	Ultrafast nonlinear ultrasonic measurement using femtosecond laser and modified lock-in detection. Optics and Lasers in Engineering, 2022, 150, 106844.	3.8	6
159	Integrated impedance and guided wave based damage detection under temperature variation. , 2011, , .		5
160	Novel multi-coil resonator design for wireless power transfer through reinforced concrete structure with rebar array. , 2017, , .		5
161	IN SITU DETECTION OF SURFACE-MOUNTED PZT TRANSDUCER DEFECTS USING LINEAR RECIPROCITY. , 2010, , .		4
162	Pipeline monitoring using an integrated MFC/FBG system. Proceedings of SPIE, 2011, , .	0.8	4

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163	Active Dimensional Quality Assessment of Precast Concrete Using 3D Laser Scanning. , 2013, , .		4
164	Laser Lock-In Thermography for Fatigue Crack Detection. Key Engineering Materials, 2013, 558, 76-83.	0.4	4
165	Sensing solutions for assessing and monitoring of nuclear power plants (NPPs). , 2014, , 605-637.		4
166	Subspace model identification of guided wave propagation in metallic plates. Smart Materials and Structures, 2014, 23, 035006.	3.5	4
167	Full-Scale Application of a Dimensional Quality Assessment Technique to Precast Concrete Panels using Terrestrial Laser Scanning. , 2014, , .		4
168	Special Section Guest Editorial: Structural Health Monitoring: Use of Guided Waves and/or Nonlinear Acoustic Techniques. Optical Engineering, 2015, 55, 011001.	1.0	4
169	Non-contact laser ultrasonics forÂSHM in aerospace structures. , 2016, , 325-352.		4
170	A cloud-based information repository for bridge monitoring applications. , 2016, , .		4
171	Wireless power and data transfer system for smart bridge sensors. , 2016, , .		4
172	Reconstruction of laser ultrasonic wavefield images from reduced sparse measurements using compressed sensing aided super-resolution. AIP Conference Proceedings, 2017, , .	0.4	4
173	Operation of battery-less and wireless sensor using magnetic resonance based wireless power transfer through concrete. Smart Structures and Systems, 2016, 17, 631-646.	1.9	4
174	Automated visualization of steel structure coating thickness using line laser scanning thermography. Automation in Construction, 2022, 139, 104267.	9.8	4
175	Instantaneous crack detection using dual PZT transducers. Proceedings of SPIE, 2008, , .	0.8	3
176	Delamination detection in a composite plate using a dual piezoelectric transducer network. Proceedings of SPIE, 2011, , .	0.8	3
177	Damage detection technique by measuring laser-based mechanical impedance. AIP Conference Proceedings, 2014, , .	0.4	3
178	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.	7.5	3
179	A Fatigue Crack Detection Methodology. KAIST Research Series, 2015, , 233-253.	1.5	3
180	Online melt pool depth estimation in laser metal deposition using a coaxial thermography system. Journal of Laser Applications, 2022, 34, .	1.7	3

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181	Frequency domain reference-free crack detection using transfer impedances in plate structures. Proceedings of SPIE, 2009, , .	0.8	2
182	Finite Element Model Updating of a PSC Box Girder Bridge Using Ambient Vibration Test. Advanced Materials Research, 2010, 168-170, 2263-2270.	0.3	2
183	Investigating mode-converted Lamb wave signals induced by a notch on a beam in the frequency domain. Proceedings of SPIE, 2011, , .	0.8	2
184	Impact localization in an aircraft fuselage using laser based time reversal. Proceedings of SPIE, 2011, , .	0.8	2
185	An optical fiber guided ultrasonic excitation and sensing system for online monitoring of nuclear power plants. , 2012, , .		2
186	Crack detection on wind turbine blades in an operating environment using vibro-acoustic modulation technique. , 2013, , .		2
187	Mechanical impedance measurement and damage detection using noncontact laser ultrasound. Optics Letters, 2014, 39, 3130.	3.3	2
188	Non-contact visualization of nonlinear ultrasonic modulation for reference-free fatigue crack detection. Proceedings of SPIE, 2014, , .	0.8	2
189	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	2
190	Laser based impedance measurement for pipe corrosion and bolt-loosening detection. Smart Structures and Systems, 2015, 15, 41-55.	1.9	2
191	Statistical Pattern Recognition Paradigm Applied to Defect Detection in Composite Plates. , 2005, , 293-303.		1
192	3H-6 Design Considerations For A Non-Contact, Inductively Coupled Lamb Wave Transducer. , 2006, , .		1
193	Laser ultrasonic imaging of a rotating blade. Proceedings of SPIE, 2012, , .	0.8	1
194	Isolation of crack-induced standing wave energy from laser scanned ultrasonic image. AIP Conference Proceedings, 2012, , .	0.4	1
195	Laser lock-in thermography for fatigue crack detection in an uncoated metallic structure. , 2013, , .		1
196	Development of a wireless nonlinear wave modulation spectroscopy (NWMS) sensor node for fatigue crack detection. Proceedings of SPIE, 2014, , .	0.8	1
197	Detection of fatigue crack on a rotating steel shaft using air-coupled nonlinear ultrasonic modulation. , 2015, , .		1
198	Post-tensioning tendon force loss detection using low power pulsed eddy current measurement. AIP Conference Proceedings, 2018, , .	0.4	1

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