

# Cyclic Crack Monitoring of a Reinforced Concrete Column Under Pseudo-Dynamic Loading Using Piezoceramic-Based Strain Sensors

Applied Sciences (Switzerland)

6, 341

DOI: [10.3390/app6110341](https://doi.org/10.3390/app6110341)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Detection of Debonding Between Fiber Reinforced Polymer Bar and Concrete Structure Using Piezoceramic Transducers and Wavelet Packet Analysis. IEEE Sensors Journal, 2017, 17, 1992-1998.	2.4	96
2	Crack detection in plastic pipe using piezoelectric transducers based on nonlinear ultrasonic modulation. Smart Materials and Structures, 2017, 26, 104012.	1.8	19
3	Early Determination of the Presence of Low Strength Concrete in Reinforced Concrete Beam-Column Joints Using Piezoceramic-Based Transducers. IEEE Sensors Journal, 2017, 17, 3244-3250.	2.4	20
4	Interlayer Slide Detection Using Piezoceramic Smart Aggregates Based on Active Sensing Approach. IEEE Sensors Journal, 2017, 17, 6160-6166.	2.4	24
5	Monitoring of Corrosion-Induced Degradation in Prestressed Concrete Structure Using Embedded Piezoceramic-Based Transducers. IEEE Sensors Journal, 2017, 17, 5823-5830.	2.4	39
6	Detection of Interfacial Debonding in a Rubber-Steel-Layered Structure Using Active Sensing Enabled by Embedded Piezoceramic Transducers. Sensors, 2017, 17, 2001.	2.1	35
7	Finite Element Analysis of Grouting Compactness Monitoring in a Post-Tensioning Tendon Duct Using Piezoceramic Transducers. Sensors, 2017, 17, 2239.	2.1	24
8	Dielectric Characterization of Chinese Standard Concrete for Compressive Strength Evaluation. Applied Sciences (Switzerland), 2017, 7, 177.	1.3	30
9	Seismic Damage Evaluation of Concrete-Encased Steel Frame-Reinforced Concrete Core Tube Buildings Based on Dynamic Characteristics. Applied Sciences (Switzerland), 2017, 7, 314.	1.3	23
10	Structural Health Monitoring (SHM) of Civil Structures. Applied Sciences (Switzerland), 2017, 7, 789.	1.3	85
11	Experimental Damage Identification of a Model Reticulated Shell. Applied Sciences (Switzerland), 2017, 7, 362.	1.3	19
12	Real-Time Monitoring of Soil Compaction Using Piezoceramic-Based Embeddable Transducers and Wavelet Packet Analysis. IEEE Access, 2018, 6, 5208-5214.	2.6	28
13	Sensors Used in Structural Health Monitoring. Archives of Computational Methods in Engineering, 2018, 25, 901-918.	6.0	48
14	A feasibility study on real-time evaluation of concrete surface crack repairing using embedded piezoceramic transducers. Measurement: Journal of the International Measurement Confederation, 2018, 122, 591-596.	2.5	23
15	Seismic Damage Investigation of Spatial Frames with Steel Beams Connected to L-Shaped Concrete-Filled Steel Tubular (CFST) Columns. Applied Sciences (Switzerland), 2018, 8, 1713.	1.3	23
16	Nonlinear Ultrasonic Detection Method for Delamination Damage of Lined Anti-Corrosion Pipes Using PZT Transducers. Applied Sciences (Switzerland), 2018, 8, 2240.	1.3	34
17	Compound Damages Detection for Rotors by the Coupled Piezoelectric Impedance. IEEE Access, 2018, 6, 75975-75987.	2.6	2
18	Stability Prediction Model of Roadway Surrounding Rock Based on Concept Lattice Reduction and a Symmetric Alpha Stable Distribution Probability Neural Network. Applied Sciences (Switzerland), 2018, 8, 2164.	1.3	10

#	ARTICLE	IF	CITATIONS
19	Local Bond-Slip Monitoring in a Steel Plate-Ultra High Performance Concrete (S-UHPC) Beam Using Smart Aggregates. , 2018, , .		5
20	Feasibility Study of Steel Bar Corrosion Monitoring Using a Piezoceramic Transducer Enabled Time Reversal Method. Applied Sciences (Switzerland), 2018, 8, 2304.	1.3	64
21	Loosening Monitoring of a Threaded Pipe Connection Using the Electro-Mechanical Impedance Technique—Experimental and Numerical Studies. Sensors, 2018, 18, 3699.	2.1	19
22	A POSHE-Based Optimum Clip-Limit Contrast Enhancement Method for Ultrasonic Logging Images. Sensors, 2018, 18, 3954.	2.1	5
23	Detection of Defects in Reinforced Concrete Structures Using Ultrasonic Nondestructive Evaluation with Piezoceramic Transducers and the Time Reversal Method. Sensors, 2018, 18, 4176.	2.1	30
24	Prestress Monitoring of a Steel Strand in an Anchorage Connection Using Piezoceramic Transducers and Time Reversal Method. Sensors, 2018, 18, 4018.	2.1	24
25	Feasibility Study of Real-Time Monitoring of Pin Connection Wear Using Acoustic Emission. Applied Sciences (Switzerland), 2018, 8, 1775.	1.3	9
26	Structure Damage Identification Based on Regularized ARMA Time Series Model under Environmental Excitation. Vibration, 2018, 1, 138-156.	0.9	8
27	A Fiber Bragg Grating (FBG)-Enabled Smart Washer for Bolt Pre-Load Measurement: Design, Analysis, Calibration, and Experimental Validation. Sensors, 2018, 18, 2586.	2.1	42
28	Wear Degree Quantification of Pin Connections Using Parameter-Based Analyses of Acoustic Emissions. Sensors, 2018, 18, 3503.	2.1	4
29	Damage Detection of Concrete-Filled Square Steel Tube (CFSST) Column Joints under Cyclic Loading Using Piezoceramic Transducers. Sensors, 2018, 18, 3266.	2.1	34
30	A Feasibility Study on Timber Damage Detection Using Piezoceramic-Transducer-Enabled Active Sensing. Sensors, 2018, 18, 1563.	2.1	39
31	A Feasibility Study on Timber Moisture Monitoring Using Piezoceramic Transducer-Enabled Active Sensing. Sensors, 2018, 18, 3100.	2.1	22
32	Feasibility Study of Interlayer Slide Monitoring Using Postembedded Piezoceramic Smart Aggregates. Journal of Sensors, 2018, 2018, 1-10.	0.6	11
33	Damage Detection of L-Shaped Concrete Filled Steel Tube (L-CFST) Columns under Cyclic Loading Using Embedded Piezoceramic Transducers. Sensors, 2018, 18, 2171.	2.1	38
34	Structural Health Monitoring and Time-Dependent Effects Analysis of Self-Anchored Suspension Bridge with Extra-Wide Concrete Girder. Applied Sciences (Switzerland), 2018, 8, 115.	1.3	17
35	Residual Axial Bearing Capacity of Concrete-Filled Circular Steel Tubular Columns (CFCSTCs) after Transverse Impact. Applied Sciences (Switzerland), 2018, 8, 793.	1.3	19
36	Detection of Impact Damage on PVA-ECC Beam Using Infrared Thermography. Applied Sciences (Switzerland), 2018, 8, 839.	1.3	11

#	ARTICLE	IF	CITATIONS
37	Vibration Reduction of an Existing Glass Window through a Viscoelastic Material-Based Retrofit. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1061.	1.3	14
38	Health Monitoring of Bolted Spherical Joint Connection Based on Active Sensing Technique Using Piezoceramic Transducers. <i>Sensors</i> , 2018, 18, 1727.	2.1	59
39	Damage Detection of a Concrete Column Subject to Blast Loads Using Embedded Piezoceramic Transducers. <i>Sensors</i> , 2018, 18, 1377.	2.1	63
40	Evaluation of the Effect of Fly Ash on Hydration Characterization in Self-Compacting Concrete (SCC) at Very Early Ages Using Piezoceramic Transducers. <i>Sensors</i> , 2018, 18, 2489.	2.1	21
41	Real-Time Monitoring of Bond Slip between GFRP Bar and Concrete Structure Using Piezoceramic Transducer-Enabled Active Sensing. <i>Sensors</i> , 2018, 18, 2653.	2.1	65
42	Tapping and listening: a new approach to bolt looseness monitoring. <i>Smart Materials and Structures</i> , 2018, 27, 07LT02.	1.8	102
43	Monitoring of concrete structure damage caused by sulfate attack with the use of embedded piezoelectric transducers. <i>Smart Materials and Structures</i> , 2019, 28, 105039.	1.8	14
44	Experimental and Numerical Study on the Strain Behavior of Buried Pipelines Subjected to an Impact Load. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3284.	1.3	9
45	Determination and Implementation of Reasonable Completion State for the Self-Anchored Suspension Bridge with Extra-Wide Concrete Girder. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 2576.	1.3	6
46	Research on Application of Uplift-Restricted Slip-Permitted (URSP) Connectors in Steel-Concrete Composite Frames. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 2235.	1.3	18
47	Effect of Pre-Corrosion Pits on Residual Fatigue Life for 42CrMo Steel. <i>Materials</i> , 2019, 12, 2130.	1.3	6
48	History data free piezoelectric based non-destructive testing technique for debonding detection of composite structures. <i>Composite Structures</i> , 2019, 226, 111225.	3.1	15
49	Dynamic response of buried pipeline subject to impact loads using piezoceramic transducers. <i>International Journal of Pressure Vessels and Piping</i> , 2019, 177, 103984.	1.2	10
50	Emerging Construction Materials and Sustainable Infrastructure. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 4127.	1.3	3
51	A study on a near-shore cantilevered sea wave energy harvester with a variable cross section. <i>Energy Science and Engineering</i> , 2019, 7, 3174-3185.	1.9	15
52	Structural Damage Detection and Health Monitoring. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 4027.	1.3	2
53	An EKF-Based Method and Experimental Study for Small Leakage Detection and Location in Natural Gas Pipelines. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3193.	1.3	5
54	Experimental Study on Energy Dissipation Performance and Failure Mode of Web-Connected Replaceable Energy Dissipation Link. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3200.	1.3	7

#	ARTICLE	IF	CITATIONS
55	Structural Health Monitoring and Interface Damage Detection for Infill Reinforced Concrete Walls in Seismic Retrofit of Reinforced Concrete Frames Using Piezoceramic-Based Transducers Under the Cyclic Loading. Applied Sciences (Switzerland), 2019, 9, 312.	1.3	15
56	Damage Detection in Beam Bridges Using Quasi-static Displacement Influence Lines. Applied Sciences (Switzerland), 2019, 9, 1805.	1.3	9
57	Predicting the Loose Zone of Roadway Surrounding Rock Using Wavelet Relevance Vector Machine. Applied Sciences (Switzerland), 2019, 9, 2064.	1.3	15
58	Identification of the structural damage mechanism of BFRP bars reinforced concrete beams using smart transducers based on time reversal method. Construction and Building Materials, 2019, 220, 615-627.	3.2	53
59	Monitoring the Dynamic Response of a Buried Polyethylene Pipe to a Blast Wave: An Experimental Study. Applied Sciences (Switzerland), 2019, 9, 1663.	1.3	19
60	Experimental Study on Hysteretic Behavior of the Overlapped K-Joints with Concrete Filled in Chord. Applied Sciences (Switzerland), 2019, 9, 1456.	1.3	5
61	Crack Detection of FRP-Reinforced Concrete Beam Using Embedded Piezoceramic Smart Aggregates. Sensors, 2019, 19, 1979.	2.1	27
62	Looseness Monitoring of Bolted Spherical Joint Connection Using Electro-Mechanical Impedance Technique and BP Neural Networks. Sensors, 2019, 19, 1906.	2.1	31
63	Negative Pressure Waves Based High Resolution Leakage Localization Method Using Piezoceramic Transducers and Multiple Temporal Convolutions. Sensors, 2019, 19, 1990.	2.1	11
64	Monitoring of Epoxy-Grouted Bonding Strength Development between an Anchored Steel Bar and Concrete Using PZT-Enabled Active Sensing. Sensors, 2019, 19, 2096.	2.1	15
65	Study on Seismic Performance and Damage Analysis of Steel Plate Shear Wall with Partially Encased Composite (PEC) Columns. Applied Sciences (Switzerland), 2019, 9, 907.	1.3	7
66	Detection of Gaps in Concrete-Metal Composite Structures Based on the Feature Extraction Method Using Piezoelectric Transducers. Sensors, 2019, 19, 1769.	2.1	11
67	PZT transducer array enabled pipeline defect locating based on time-reversal method and matching pursuit de-noising. Smart Materials and Structures, 2019, 28, 075019.	1.8	42
68	Debonding detection in a carbon fibre reinforced concrete structure using guided waves. Smart Materials and Structures, 2019, 28, 045020.	1.8	15
69	Design of a New Stress Wave-Based Pulse Position Modulation (PPM) Communication System with Piezoceramic Transducers. Sensors, 2019, 19, 558.	2.1	43
70	Hysteretic Behavior of Steel Reinforced Concrete Columns Based on Damage Analysis. Applied Sciences (Switzerland), 2019, 9, 687.	1.3	12
71	A Novel Embeddable Tubular Piezoceramics-Based Smart Aggregate for Damage Detection in Two-Dimensional Concrete Structures. Sensors, 2019, 19, 1501.	2.1	20
72	Damage Analyses of Replaceable Links in Eccentrically Braced Frame (EBF) Subject to Cyclic Loading. Applied Sciences (Switzerland), 2019, 9, 332.	1.3	8

#	ARTICLE	IF	CITATIONS
73	Seismic Health Monitoring of a Space Reinforced Concrete Frame Structure Using Piezoceramic-Based Sensors. <i>Journal of Aerospace Engineering</i> , 2019, 32, .	0.8	26
74	Grouting Quality Evaluation in Post-Tensioning Tendon Ducts Using Wavelet Packet Transform and Bayes Classifier. <i>Sensors</i> , 2019, 19, 5372.	2.1	7
75	Real-Time Monitoring of Early-Age Concrete Strength Using Piezoceramic-Based Smart Aggregates. <i>Journal of Aerospace Engineering</i> , 2019, 32, .	0.8	35
76	Investigation of Bonding Behavior of FRP and Steel Bars in Self-Compacting Concrete Structures Using Acoustic Emission Method. <i>Sensors</i> , 2019, 19, 159.	2.1	56
77	Study on the application of post-embedded piezoceramic transducers for crack detection on earthquake-damaged RC columns. <i>Smart Materials and Structures</i> , 2019, 28, 055039.	1.8	5
78	Quantitative evaluation of bolt connection using a single piezoceramic transducer and ultrasonic coda wave energy with the consideration of the piezoceramic aging effect. <i>Smart Materials and Structures</i> , 2020, 29, 027001.	1.8	34
79	A nonlinear ultrasonic method for real-time bolt looseness monitoring using PZT transducer-enabled vibro-acoustic modulation. <i>Journal of Intelligent Material Systems and Structures</i> , 2020, 31, 364-376.	1.4	42
80	Detecting Debonding between Steel Beam and Reinforcing CFRP Plate Using Active Sensing with Removable PZT-Based Transducers. <i>Sensors</i> , 2020, 20, 41.	2.1	13
81	Monitoring the Structural Health of Glass Fibre-Reinforced Hybrid Laminates Using Novel Piezoceramic Film. <i>Sensors</i> , 2020, 20, 5428.	2.1	2
82	Piezoelectric Electro-Mechanical Impedance (EMI) Based Structural Crack Monitoring. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 4648.	1.3	24
83	Structural Health Monitoring of Timber Using Electromechanical Impedance (EMI) Technique. <i>Advances in Civil Engineering</i> , 2020, 2020, 1-9.	0.4	10
84	Design and Analysis of a Novel Piezoceramic Stack-based Smart Aggregate. <i>Sensors</i> , 2020, 20, 6438.	2.1	6
85	Defect detection in pipe structures using stochastic resonance of Duffing oscillator and ultrasonic guided waves. <i>International Journal of Pressure Vessels and Piping</i> , 2020, 187, 104168.	1.2	9
86	An experimental study on a high-efficient multifunctional U-shaped piezoelectric coupled beam. <i>Energy Conversion and Management</i> , 2020, 224, 113330.	4.4	19
87	Detecting of the Crack and Leakage in the Joint of Precast Concrete Segmental Bridge Using Piezoceramic Based Smart Aggregate. <i>Sensors</i> , 2020, 20, 5398.	2.1	3
88	Bolt Pretightening Force Measurement Based on Strain Distribution of Bolt Head Surface. <i>Journal of Aerospace Engineering</i> , 2020, 33, .	0.8	22
89	Monitoring of bending stiffness of BFRP reinforced concrete beams using piezoceramic transducer enabled active sensing. <i>Smart Materials and Structures</i> , 2020, 29, 105012.	1.8	14
90	A novel method to monitor soft soil strength development in artificial ground freezing projects based on electromechanical impedance technique: Theoretical modeling and experimental validation. <i>Journal of Intelligent Material Systems and Structures</i> , 2020, 31, 1477-1494.	1.4	23

#	ARTICLE	IF	CITATIONS
91	Flexural Behavior of a 30-Meter Full-Scale Simply Supported Prestressed Concrete Box Girder. Applied Sciences (Switzerland), 2020, 10, 3076.	1.3	12
92	Active Health Monitoring of Thick Composite Structures by Embedded and Surface-Mounted Piezo Diagnostic Layer. Sensors, 2020, 20, 3410.	2.1	21
93	Monitoring of Grouting Compactness in Tendon Duct Using Multi-Sensing Electro-Mechanical Impedance Method. Applied Sciences (Switzerland), 2020, 10, 2018.	1.3	8
94	Editorial for Special Issue "Energy Dissipation and Vibration Control: Materials, Modeling, Algorithm, and Devices". Applied Sciences (Switzerland), 2020, 10, 572.	1.3	1
95	Experimental Research on Shear Failure Monitoring of Composite Rocks Using Piezoelectric Active Sensing Approach. Sensors, 2020, 20, 1376.	2.1	5
96	Piezoceramic-Based Damage Monitoring of Concrete Structure for Underwater Blasting. Sensors, 2020, 20, 1672.	2.1	2
97	A New Approach to Identifying Crash Hotspot Intersections (CHIs) Using Spatial Weights Matrices. Applied Sciences (Switzerland), 2020, 10, 1625.	1.3	4
98	Axial Load Monitoring for Concrete Columns Using a Wearable Smart Hoop Based on the Piezoelectric Impedance Frequency Shift: A Feasibility Study. Advances in Civil Engineering, 2020, 2020, 1-12.	0.4	1
99	Detecting of the Longitudinal Grouting Quality in Prestressed Curved Tendon Duct Using Piezoceramic Transducers. Sensors, 2020, 20, 1212.	2.1	10
100	Interfacial debonding detection in externally bonded bfrp reinforced concrete using stress wave-based sensing approach. Smart Materials and Structures, 2020, 29, 035039.	1.8	26
101	Monitoring of bolt looseness using piezoelectric transducers: Three-dimensional numerical modeling with experimental verification. Journal of Intelligent Material Systems and Structures, 2020, 31, 911-918.	1.4	25
102	Design of a new low-cost unmanned aerial vehicle and vision-based concrete crack inspection method. Structural Health Monitoring, 2020, 19, 1871-1883.	4.3	36
103	Detection of Surface Breaking Cracks Filled With Solid Impurities Using a Baseline-Free NEWS-TR Method. IEEE Access, 2020, 8, 56908-56920.	2.6	4
104	An embeddable spherical smart aggregate for monitoring concrete hydration in very early age based on electromechanical impedance method. Journal of Intelligent Material Systems and Structures, 2021, 32, 537-548.	1.4	22
105	Estimate buried metal pipe length using PZT detected stress wave reflection. Journal of Intelligent Material Systems and Structures, 2021, 32, 799-816.	1.4	1
106	A feasibility study on elbow erosion monitoring using active sensing approach and fractional Fourier transform. Journal of Intelligent Material Systems and Structures, 2021, 32, 584-596.	1.4	3
107	Damage monitoring of concrete laminated interface using piezoelectric-based smart aggregate. Engineering Structures, 2021, 228, 111489.	2.6	15
108	A simple PZT transducer design for electromechanical impedance (EMI)-based multi-sensing interrogation. Journal of Civil Structural Health Monitoring, 2021, 11, 235-249.	2.0	10

#	ARTICLE	IF	CITATIONS
109	Attenuation characteristics of stress wave in cracked concrete beam using smart aggregate transducers enabled time-reversal technique. <i>Journal of Intelligent Material Systems and Structures</i> , 2021, 32, 473-485.	1.4	10
110	Riding Stress Wave: Underwater Communications Through Pipeline Networks. <i>IEEE Journal of Oceanic Engineering</i> , 2021, 46, 1450-1462.	2.1	5
111	Monitoring of corrosion-induced damage to bolted joints using an active sensing method with piezoceramic transducers. <i>Journal of Civil Structural Health Monitoring</i> , 2021, 11, 411-420.	2.0	11
112	Monitoring bond strength of adhesively planted rebars in concrete using electro-mechanical impedance (EMI). <i>Journal of Civil Structural Health Monitoring</i> , 2021, 11, 559-573.	2.0	2
113	Flexural Damage Diagnosis in Reinforced Concrete Beams Using a Wireless Admittance Monitoring System—Tests and Finite Element Analysis. <i>Sensors</i> , 2021, 21, 679.	2.1	59
114	Deterioration of structural parameters due to corrosion in prestressed concrete identified by smart probe-based piezo sensor. <i>Engineering Research Express</i> , 2021, 3, 015011.	0.8	16
115	Plastic Joints in Bridge Columns of Atypical Cross-Sections with Smooth Reinforcement without Seismic Details. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 2658.	1.3	4
116	A novel intelligent inspection robot with deep stereo vision for three-dimensional concrete damage detection and quantification. <i>Structural Health Monitoring</i> , 2022, 21, 788-802.	4.3	28
117	Two-Dimensional Deformation Estimation of Beam-Like Structures Using Inverse Finite-Element Method: Theoretical Study and Experimental Validation. <i>Journal of Engineering Mechanics - ASCE</i> , 2021, 147, .	1.6	14
118	Reverberating Stress Wave Channel Capacity in Pipe Communications. , 2021, , .		0
119	A Feasibility Study on Monitoring Pile-Soil Bonding Condition Using Piezoceramic Transducer and Horizontal Impact. <i>Journal of Sensors</i> , 2021, 2021, 1-11.	0.6	1
120	Monitoring bond-slip behavior of CFRP-RCESB beams using piezoelectric active sensing method. <i>Advances in Bridge Engineering</i> , 2021, 2, .	0.8	3
121	Feasibility Study of an Active Sensing Approach to Detect Soil Slope Interlayer Slide Using Piezoceramic Buzzers. <i>IEEE Sensors Journal</i> , 2021, 21, 20951-20959.	2.4	4
122	Old - New Concrete Interfacial Bond Slip Monitoring in Anchored Rebar Reinforced Concrete Structure Using PZT Enabled Active Sensing. <i>Frontiers in Materials</i> , 2021, 8, .	1.2	0
123	Feasibility of piezoceramic transducer-enabled active sensing for the monitoring cross-shaped concrete filled steel tubular (CCFST) columns under cyclic loading. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021, 182, 109646.	2.5	10
124	Smart sensing for post-earthquake damage quantification in RC members using piezoceramic transducers. <i>Automation in Construction</i> , 2021, 131, 103888.	4.8	2
125	A novel percussion-based method for multi-bolt looseness detection using one-dimensional memory augmented convolutional long short-term memory networks. <i>Mechanical Systems and Signal Processing</i> , 2021, 161, 107955.	4.4	49
126	Design of a networking stress wave communication method along pipelines. <i>Mechanical Systems and Signal Processing</i> , 2022, 164, 108192.	4.4	2



#	ARTICLE	IF	CITATIONS
127	Piezoelectric-based damage-depth monitoring method for underwater energy-relief blasting technique. <i>Journal of Civil Structural Health Monitoring</i> , 2021, 11, 251-264.	2.0	4
128	A novel embeddable spherical smart aggregate for structural health monitoring: part I. Fabrication and electrical characterization. <i>Smart Materials and Structures</i> , 2017, 26, 095050.	1.8	76
129	A novel embeddable spherical smart aggregate for structural health monitoring: part II. Numerical and experimental verifications. <i>Smart Materials and Structures</i> , 2017, 26, 095051.	1.8	47
130	Feasibility study of a touch-enabled active sensing approach to inspecting subsea bolted connections using piezoceramic transducers. <i>Smart Materials and Structures</i> , 2020, 29, 085038.	1.8	17
131	A novel OFDR-based distributed optical fiber sensing tape: design, optimization, calibration and application. <i>Smart Materials and Structures</i> , 2020, 29, 105017.	1.8	11
132	Experimental Study on Damage Identification of Nano-SiO <sub>2</sub> Concrete Filled GFRP Tube Column Using Piezoceramic Transducers. <i>Sensors</i> , 2020, 20, 2883.	2.1	4
133	Actuating Performance Analysis of a New Smart Aggregate Using Piezoceramic Stack. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 9599.	1.3	6
134	Experimental research on the acoustic transmission characteristics of refractory materials. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2020, 42, 1.	0.8	1
135	Mini-Crack Detection of Conveyor Belt Based on Laser Excited Thermography. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 10766.	1.3	9
136	Fracture behaviors of HVFA-SCC mixed with seawater and sea-sand under three-point bending. <i>Advances in Structural Engineering</i> , 2022, 25, 716-735.	1.2	3
137	Bolt preload monitoring based on percussion sound signal and convolutional neural network (CNN). <i>Nondestructive Testing and Evaluation</i> , 2022, 37, 464-481.	1.1	12
138	Singular spectrum analysis and fuzzy entropy-based damage detection on a thin aluminium plate by using PZTs. <i>Smart Materials and Structures</i> , 2022, 31, 035015.	1.8	9
139	Diffuse Ultrasonic Wave-Based Damage Detection of Railway Tracks Using PZT/FBG Hybrid Sensing System. <i>Sensors</i> , 2022, 22, 2504.	2.1	10
140	High resolution bolt pre-load looseness monitoring using coda wave interferometry. <i>Structural Health Monitoring</i> , 2022, 21, 1959-1972.	4.3	23
141	Advanced multifunctional structures for future smart cities. , 2022, , 29-52.		2
142	Lead Zirconate Titanate-based bolt looseness monitoring using multiscale singular spectrum entropy analysis and genetic algorithm-based support vector machine. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 0, , 095440622210927.	1.1	2
143	Early-age concrete strength development monitoring using piezoelectric self-emission and detection (SED) and coda wave energy (CWE). <i>Smart Materials and Structures</i> , 2022, 31, 085003.	1.8	1
144	Optimisation of active SHM system based on optimal number and placement of piezoelectric transducers. <i>Journal of Intelligent Material Systems and Structures</i> , 2023, 34, 425-439.	1.4	2

#	ARTICLE	IF	CITATIONS
145	Damage Monitoring of Engineered Cementitious Composite Beams Reinforced with Hybrid Bars Using Piezoceramic-Based Smart Aggregates. <i>Sensors</i> , 2022, 22, 7184.	2.1	3
146	Damage Detection Test of GFRP Composite Civil Materials Based on Piezoelectric Ceramic Sensors. <i>Wireless Communications and Mobile Computing</i> , 2022, 2022, 1-9.	0.8	1
147	Nanocarbon black-based ultra-high-performance concrete (UHPC) with self-strain sensing capability. <i>Construction and Building Materials</i> , 2022, 359, 129496.	3.2	11
148	Experimental research and theoretical analysis on blasting fragmentation of concrete structural system using piezoelectric smart sensors. <i>Journal of Civil Structural Health Monitoring</i> , 0, , .	2.0	0
149	A review on smart aggregate based structural health monitoring. <i>Materials Today: Proceedings</i> , 2023, 78, 28-35.	0.9	1
150	Debonding Detection in Carbon Fiber Reinforced Polymer Plate Repaired Steel Beam Using Percussion and Gaussian Mixture Model Clustering. , 2022, , .		0
151	A Novel Pipeline Corrosion Monitoring Method Based on Piezoelectric Active Sensing and CNN. <i>Sensors</i> , 2023, 23, 855.	2.1	1
152	Detection of Corrosion-Induced Damage in Bolted Steel Structure Using Piezoceramic Transducers. , 2023, , .		0
153	Damage identification of thin plate-like structures combining improved singular spectrum analysis and multiscale cross-sample entropy (ISSA-MCSEn). <i>Smart Materials and Structures</i> , 2023, 32, 034001.	1.8	3
154	Vibration acoustic modulation for bolt looseness monitoring based on frequency-swept excitation and bispectrum. <i>Smart Materials and Structures</i> , 2023, 32, 034004.	1.8	3
155	Low-power vibrothermography detection technique for surface cracks on composite sucker rod. <i>Smart Materials and Structures</i> , 2023, 32, 035034.	1.8	3
156	Deflection Estimation of Truss Structures Using Inverse Finite Element Method. <i>Sensors</i> , 2023, 23, 1716.	2.1	0
157	A time-reversal assisted probabilistic fusion strategy for damage localization in plate-like structures using Lamb waves. <i>Structural Health Monitoring</i> , 0, , 147592172211510.	4.3	1
158	Full-range bolt preload monitoring with multi-resolution using the time shifts of the direct wave and coda waves. <i>Structural Health Monitoring</i> , 0, , 147592172311582.	4.3	3
159	CrackDiffusion: crack inpainting with denoising diffusion models and crack segmentation perceptual score. <i>Smart Materials and Structures</i> , 2023, 32, 054001.	1.8	1
160	Study on pipeline corrosion monitoring based on piezoelectric active time reversal method. <i>Smart Materials and Structures</i> , 2023, 32, 054003.	1.8	0