Gilbert-Rainer Gillich

List of Publications by Year
in descending order

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55	657	623734	642732
papers	citations	14 h-index	23 g-index

61	61	61	412
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Beam Damage Assessment Using Natural Frequency Shift and Machine Learning. Sensors, 2022, 22, 1118.	3.8	14
2	A structural health monitoring Python code to detect small changes in frequencies. Mechanical Systems and Signal Processing, 2021, 147, 107087.	8.0	14
3	Stable and explainable deep learning damage prediction for prismatic cantilever steel beam. Computers in Industry, 2021, 125, 103359.	9.9	30
4	A New Concept Regarding the Modeling of Steel Cantilever Beams with Branched Cracks: A Case Study. Lecture Notes in Civil Engineering, 2021, , 207-216.	0.4	0
5	Improving the Capability of Detecting Damages in the Early State by Advanced Frequency Estimation. Lecture Notes in Civil Engineering, 2021, , 457-466.	0.4	0
6	Damage Detection on a Beam with Multiple Cracks: A Simplified Method Based on Relative Frequency Shifts. Sensors, 2021, 21, 5215.	3.8	13
7	Improving the Accuracy of Estimates of the Frequencies Based on a Pseudo-sinc Function. Springer Proceedings in Physics, 2021, , 85-90.	0.2	0
8	Efficient Algorithm for Frequency Estimation Used in Structural Damage Detection. Lecture Notes in Mechanical Engineering, 2020, , 283-300.	0.4	1
9	A Multibody Inertial Propulsion Drive with Symmetrically Placed Balls Rotating on Eccentric Trajectories. Symmetry, 2020, 12, 1422.	2.2	4
10	Detection of Multiple Cracks Using an Energy Method Applied to the Concept of Equivalent Healthy Beam. Lecture Notes in Mechanical Engineering, 2020, , 63-78.	0.4	2
11	A python application to calculate the mode shapes of rectangular plates. Vibroengineering PROCEDIA, 2020, 33, 66-71.	0.5	0
12	Circular crack identification in plates based on natural frequency evaluation. Vibroengineering PROCEDIA, 2020, 33, 17-21.	0.5	1
13	Microcontroller Based STFT-Vibration Analyzer. , 2020, , .		0
14	A robust damage detection method based on multi-modal analysis in variable temperature conditions. Mechanical Systems and Signal Processing, 2019, 115, 361-379.	8.0	78
15	A method for an accurate estimation of natural frequencies using swept-sine acoustic excitation. Mechanical Systems and Signal Processing, 2019, 116, 693-709.	8.0	32
16	The effect of a crack near the fixed end on the natural frequencies of a cantilever beam. Vibroengineering PROCEDIA, 2019, 23, 37-42.	0.5	4
17	Assessing multiple cracks in beams by a method based on the damage location coefficients. Vibroengineering PROCEDIA, 2019, 23, 49-54.	0.5	4
18	Comparison of the performance of friction pendulums with uniform and variable radii. Vibroengineering PROCEDIA, 2019, 23, 81-86.	0.5	5

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19	A versatile algorithm for estimating natural frequencies with high accuracy. Vibroengineering PROCEDIA, 2019, 27, 37-42.	0.5	2
20	Sensitivity analysis for frequency-based prediction of cracks in open cross-section beams. Vibroengineering PROCEDIA, 2019, 27, 7-12.	0.5	2
21	Decoupling the structure from the ground motion during earthquakes by employing friction pendulums. IOP Conference Series: Materials Science and Engineering, 2018, 294, 012025.	0.6	3
22	Natural frequencies of thin rectangular plates clamped on contour using the Finite Element Method. IOP Conference Series: Materials Science and Engineering, 2018, 294, 012033.	0.6	3
23	Problem of Detecting Damage Through Natural Frequency Changes. Computational and Experimental Methods in Structures, 2018, , 105-139.	0.3	4
24	Study on the effect of the friction coefficient on the response of structures isolated with friction pendulums. Vibroengineering PROCEDIA, 2018, 19, 6-11.	0.5	5
25	A procedure for an accurate estimation of the natural frequencies of structures. Vibroengineering PROCEDIA, 2018, 19, 123-128.	0.5	1
26	Numerical study on complex shaped cracks in cantilever beams concerning frequency and stiffness changes. Vibroengineering PROCEDIA, 2018, 19, 253-258.	0.5	2
27	Frequency and magnitude estimation in voltage unbalanced power systems. , 2017, , .		3
28	Damage detection in multi-span beams based on the analysis of frequency changes. Journal of Physics: Conference Series, 2017, 842, 012033.	0.4	11
29	Method to Enhance the Frequency Readability for Detecting Incipient Structural Damage. Iranian Journal of Science and Technology - Transactions of Mechanical Engineering, 2017, 41, 233-242.	1.3	21
30	Integrity evaluation concerning vibrations of a welded structure. MATEC Web of Conferences, 2017, 112, 03015.	0.2	0
31	Damage severity estimation from the global stiffness decrease. Journal of Physics: Conference Series, 2017, 842, 012034.	0.4	5
32	The influence of stiffening ribs on the natural frequencies of butterfly valve disks. IOP Conference Series: Materials Science and Engineering, 2017, 163, 012041.	0.6	0
33	Water hammer effect in the spiral case and penstock of Francis turbines. IOP Conference Series: Materials Science and Engineering, 2017, 163, 012010.	0.6	1
34	Early observation of modal parameter changes by an enhanced frequency evaluation algorithm. MATEC Web of Conferences, 2016, 83, 06004.	0.2	0
35	A New Approach for Severity Estimation of Transversal Cracks in Multi-layered Beams. Latin American Journal of Solids and Structures, 2016, 13, 1526-1544.	1.0	14
36	Free Vibration of a Perfectly Clamped-Free Beam with Stepwise Eccentric Distributed Masses. Shock and Vibration, 2016, 2016, 1-10.	0.6	17

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37	Damage Models and Assessment Methods. Shock and Vibration, 2016, 2016, 1-1.	0.6	1
38	The influence of thermal field in the electric arc welding of X60 carbon steel components in the CO2 environment. Applied Thermal Engineering, 2016, 103, 1164-1175.	6.0	17
39	Early Structural Damage Assessment by Using an Improved Frequency Evaluation Algorithm. Latin American Journal of Solids and Structures, 2015, 12, 2311-2329.	1.0	28
40	Nondestructive evaluation of piers. , 2015, , .		2
41	Damage identification in rectangular plates using spectral strain energy distribution. Proceedings of SPIE, 2015, , .	0.8	1
42	GEARBOXES NOISE REDUCTION BY APPLYING A FLUOROPOLYMER COATING PROCEDURE. Environmental Engineering and Management Journal, 2015, 14, 1433-1439.	0.6	11
43	Natural Frequency Changes due to Severe Corrosion in Metallic Structures. Strojniski Vestnik/Journal of Mechanical Engineering, 2015, 61, 721-730.	1.1	21
44	Localization of Transversal Cracks in Sandwich Beams and Evaluation of Their Severity. Shock and Vibration, 2014, 2014, 1-10.	0.6	32
45	Finite element analysis of heat transfer in transformers from high voltage stations. Journal of Thermal Analysis and Calorimetry, 2014, 118, 1355-1360.	3.6	19
46	Modal identification and damage detection in beam-like structures using the power spectrum and timeâ€“frequency analysis. Signal Processing, 2014, 96, 29-44.	3.7	115
47	Assessment of Corrosion Damages with Important Loss of Mass and Influences on the Natural Frequencies of Bending Vibration Modes. Applied Mechanics and Materials, 2013, 430, 95-100.	0.2	2
48	Evaluation of Crack Depth in Beams for Known Damage Location Based on Vibration Modes Analysis. Applied Mechanics and Materials, 2013, 430, 90-94.	0.2	10
49	Methods of Interpreting the Results of Vibration Measurements to Locate Damages in Beams. Applied Mechanics and Materials, 2013, 430, 84-89.	0.2	2
50	Some Models of Elastomeric Seismic Isolation Devices. Applied Mechanics and Materials, 2013, 430, 356-361.	0.2	6
51	Damage-patterns-based method to locate discontinuities in beams. , 2013, , .		10
52	Reliable Method to Detect and Assess Damages in Beams Based on Frequency Changes. , 2012, , .		19
53	Robust method to identify damages in beams based on frequency shift analysis. Proceedings of SPIE, 2012, , .	0.8	19
54	Educational stand using shape memory alloys to enhance teaching of smart materials. Procedia, Social and Behavioral Sciences, 2010, 2, 5104-5108.	0.5	3

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55	The use of virtual instruments in engineering education. Procedia, Social and Behavioral Sciences, 2010, 2, 3806-3810.	0.5	24