# Gilbert-Rainer Gillich

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/9556831/publications.pdf

Version: 2024-02-01

| 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 | 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 |
| 2 | 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 |
| 3 | Localization of Transversal Cracks in Sandwich Beams and Evaluation of Their Severity. Shock and Vibration, 2014, 2014, 1-10. | 0.6 | 32 |
| 4 | 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 |
| 5 | Stable and explainable deep learning damage prediction for prismatic cantilever steel beam. Computers in Industry, 2021, 125, 103359. | 9.9 | 30 |
| 6 | 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 |
| 7 | The use of virtual instruments in engineering education. Procedia, Social and Behavioral Sciences, 2010, 2, 3806-3810. | 0.5 | 24 |
| 8 | 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 |
| 9 | Natural Frequency Changes due to Severe Corrosion in Metallic Structures. Strojniski Vestnik/Journal of Mechanical Engineering, 2015, 61, 721-730. | 1.1 | 21 |
| 10 | Reliable Method to Detect and Assess Damages in Beams Based on Frequency Changes. , 2012, , . | | 19 |
| 11 | Robust method to identify damages in beams based on frequency shift analysis. Proceedings of SPIE, 2012, , . | 0.8 | 19 |
| 12 | 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 |
| 13 | Free Vibration of a Perfectly Clamped-Free Beam with Stepwise Eccentric Distributed Masses. Shock and Vibration, 2016, 2016, 1-10. | 0.6 | 17 |
| 14 | 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 |
| 15 | 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 |
| 16 | A structural health monitoring Python code to detect small changes in frequencies. Mechanical Systems and Signal Processing, 2021, 147, 107087. | 8.0 | 14 |
| 17 | Beam Damage Assessment Using Natural Frequency Shift and Machine Learning. Sensors, 2022, 22, 1118. | 3.8 | 14 |
| 18 | Damage Detection on a Beam with Multiple Cracks: A Simplified Method Based on Relative Frequency Shifts. Sensors, 2021, 21, 5215. | 3.8 | 13 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Damage detection in multi-span beams based on the analysis of frequency changes. Journal of Physics: Conference Series, 2017, 842, 012033. | 0.4 | 11 |
| 20 | GEARBOXES NOISE REDUCTION BY APPLYING A FLUOROPOLYMER COATING PROCEDURE. Environmental Engineering and Management Journal, 2015, 14, 1433-1439. | 0.6 | 11 |
| 21 | 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 |
| 22 | Damage-patterns-based method to locate discontinuities in beams. , 2013, , . | | 10 |
| 23 | Some Models of Elastomeric Seismic Isolation Devices. Applied Mechanics and Materials, 2013, 430, 356-361. | 0.2 | 6 |
| 24 | Damage severity estimation from the global stiffness decrease. Journal of Physics: Conference Series, 2017, 842, 012034. | 0.4 | 5 |
| 25 | 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 |
| 26 | Comparison of the performance of friction pendulums with uniform and variable radii. Vibroengineering PROCEDIA, 2019, 23, 81-86. | 0.5 | 5 |
| 27 | Problem of Detecting Damage Through Natural Frequency Changes. Computational and Experimental Methods in Structures, 2018, , 105-139. | 0.3 | 4 |
| 28 | A Multibody Inertial Propulsion Drive with Symmetrically Placed Balls Rotating on Eccentric Trajectories. Symmetry, 2020, 12, 1422. | 2.2 | 4 |
| 29 | 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 |
| 30 | Assessing multiple cracks in beams by a method based on the damage location coefficients. Vibroengineering PROCEDIA, 2019, 23, 49-54. | 0.5 | 4 |
| 31 | Educational stand using shape memory alloys to enhance teaching of smart materials. Procedia, Social and Behavioral Sciences, 2010, 2, 5104-5108. | 0.5 | 3 |
| 32 | Frequency and magnitude estimation in voltage unbalanced power systems. , 2017, , . | | 3 |
| 33 | 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 |
| 34 | 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 |
| 35 | 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 |
| 36 | Methods of Interpreting the Results of Vibration Measurements to Locate Damages in Beams. Applied Mechanics and Materials, 2013, 430, 84-89. | 0.2 | 2 |

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|---|---|---|---|
| 37 | Nondestructive evaluation of piers. , 2015, , . | | 2 |
| 38 | A versatile algorithm for estimating natural frequencies with high accuracy. Vibroengineering PROCEDIA, 2019, 27, 37-42. | 0.5 | 2 |
| 39 | Numerical study on complex shaped cracks in cantilever beams concerning frequency and stiffness changes. Vibroengineering PROCEDIA, 2018, 19, 253-258. | 0.5 | 2 |
| 40 | 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 |
| 41 | Sensitivity analysis for frequency-based prediction of cracks in open cross-section beams. Vibroengineering PROCEDIA, 2019, 27, 7-12. | 0.5 | 2 |
| 42 | Damage identification in rectangular plates using spectral strain energy distribution. Proceedings of SPIE, 2015, , . | 0.8 | 1 |
| 43 | Damage Models and Assessment Methods. Shock and Vibration, 2016, 2016, 1-1. | 0.6 | 1 |
| 44 | Efficient Algorithm for Frequency Estimation Used in Structural Damage Detection. Lecture Notes in Mechanical Engineering, 2020, , 283-300. | 0.4 | 1 |
| 45 | 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 |
| 46 | A procedure for an accurate estimation of the natural frequencies of structures. Vibroengineering PROCEDIA, 2018, 19, 123-128. | 0.5 | 1 |
| 47 | Circular crack identification in plates based on natural frequency evaluation. Vibroengineering PROCEDIA, 2020, 33, 17-21. | 0.5 | 1 |
| 48 | Early observation of modal parameter changes by an enhanced frequency evaluation algorithm. MATEC Web of Conferences, 2016, 83, 06004. | 0.2 | 0 |
| 49 | Integrity evaluation concerning vibrations of a welded structure. MATEC Web of Conferences, 2017, 112, 03015. | 0.2 | 0 |
| 50 | 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 |
| 51 | 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 |
| 52 | 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 |
| 53 | A python application to calculate the mode shapes of rectangular plates. Vibroengineering PROCEDIA, 2020, 33, 66-71. | 0.5 | 0 |
| 54 | Improving the Accuracy of Estimates of the Frequencies Based on a Pseudo-sinc Function. Springer Proceedings in Physics, 2021, , 85-90. | 0.2 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Microcontroller Based STFT-Vibration Analyzer. , 2020, , . | | 0 |