Valder Steffen Jr

List of Publications by Year
in descending order

62 papers	**1,204** citations	430874 **18** h-index	395702 **33** g-index
64 all docs	**64** docs citations	**64** times ranked	**1010** citing authors

#	Article	IF	Citations
1	Multiple surrogates: how cross-validation errors can help us to obtain the best predictor. Structural and Multidisciplinary Optimization, 2009, 39, 439-457.	3.5	339
2	Modal Active Vibration Control of a Rotor Using Piezoelectric Stack Actuators. JVC/Journal of Vibration and Control, 2007, 13, 45-64.	2.6	65
3	Tuning dynamic vibration absorbers by using ant colony optimization. Computers and Structures, 2008, 86, 1539-1549.	4.4	48
4	Determination of an optimal control strategy for drug administration in tumor treatment using multi-objective optimization differential evolution. Computer Methods and Programs in Biomedicine, 2016, 131, 51-61.	4.7	45
5	OPTIMISATION OF DYNAMIC VIBRATION ABSORBERS OVER A FREQUENCY BAND. Mechanical Systems and Signal Processing, 2000, 14, 679-690.	8.0	39
6	Impedance-based structural health monitoring and statistical method for threshold-level determination applied to 2024-T3 aluminum panels under varying temperature. Structural Health Monitoring, 2017, 16, 365-381.	7.5	35
7	Optimization of aircraft structural components by using nature-inspired algorithms and multi-fidelity approximations. Journal of Global Optimization, 2009, 45, 427-449.	1.8	32
8	Reliability-based robust multi-objective optimization applied to engineering system design. Engineering Optimization, 2020, 52, 1-21.	2.6	31
9	On the identification of non-linear mechanical systems using orthogonal functions. International Journal of Non-Linear Mechanics, 2004, 39, 1147-1159.	2.6	30
10	Stochastic modeling of flexible rotors. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2012, 34, 574-583.	1.6	30
11	Experiments on Optimal Vibration Control of a Flexible Beam Containing Piezoelectric Sensors and Actuators. Shock and Vibration, 2003, 10, 283-300.	0.6	28
12	Uncertainty analysis of a flexible rotor supported by fluid film bearings. Latin American Journal of Solids and Structures, 2015, 12, 1487-1504.	1.0	28
13	Fish swarm optimization algorithm applied to engineering system design. Latin American Journal of Solids and Structures, 2014, 11, 143-156.	1.0	26
14	Impedance-based Health Monitoring for Aeronautic Structures using Statistical Meta-modeling. Journal of Intelligent Material Systems and Structures, 2006, 17, 1023-1036.	2.5	25
15	Robot path planning in a constrained workspace by using optimal control techniques. Multibody System Dynamics, 2008, 19, 159-177.	2.7	23
16	Probabilistic Neural Network and Fuzzy Cluster Analysis Methods Applied to Impedance-Based SHM for Damage Classification. Shock and Vibration, 2014, 2014, 1-12.	0.6	20
17	Vibration control of a flexible rotor suspended by shape memory alloy wires. Journal of Intelligent Material Systems and Structures, 2018, 29, 2309-2323.	2.5	18
18	Reliability-Based Optimization Using Differential Evolution and Inverse Reliability Analysis for Engineering System Design. Journal of Optimization Theory and Applications, 2017, 174, 894-926.	1.5	16

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19	Control of the breathing mechanism of a cracked rotor by using electro-magnetic actuator: numerical study. Latin American Journal of Solids and Structures, 2012, 9, 581-596.	1.0	16
20	Model updating of a rotating machine using the self-adaptive differential evolution algorithm. Inverse Problems in Science and Engineering, 2016, 24, 504-523.	1.2	15
21	Robust Balancing Approach for Rotating Machines Based on Fuzzy Logic. Journal of Vibration and Acoustics, Transactions of the ASME, 2018, 140, .	1.6	15
22	Identification of external forces in mechanical systems by using LifeCycle model and stress-stiffening effect. Mechanical Systems and Signal Processing, 2007, 21, 2900-2917.	8.0	14
23	Uncertainty analysis of flexible rotors considering fuzzy parameters and fuzzy-random parameters. Latin American Journal of Solids and Structures, 2015, 12, 1807-1823.	1.0	14
24	Optimization of unbalance distribution in rotating machinery with localized non linearity. Mechanism and Machine Theory, 2014, 72, 60-70.	4.5	13
25	Dynamic analysis of a flexible rotor supported by hydrodynamic bearings with uncertain parameters. Meccanica, 2017, 52, 2931-2943.	2.0	13
26	Fuzzy Reliability-Based Optimization for Engineering System Design. International Journal of Fuzzy Systems, 2019, 21, 1418-1429.	4.0	13
27	Fuzzy robust control applied to rotor supported by active magnetic bearing. JVC/Journal of Vibration and Control, 2021, 27, 912-923.	2.6	13
28	Analysis of the Dynamic Behavior of a Rotating Composite Hollow Shaft. Latin American Journal of Solids and Structures, 2017, 14, 1-16.	1.0	12
29	Influence of temperature on the passive control of a rotating machine using wires of shape memory alloy in the suspension. Smart Materials and Structures, 2020, 29, 035040.	3.5	12
30	Optimal Design of Piezoelectric Materials for Vibration Damping in Mechanical Systems. Journal of Intelligent Material Systems and Structures, 1999, 10, 945-955.	2.5	11
31	Using passive techniques for vibration damping in mechanical systems. Revista Brasileira De Ciencias Mecanicas/Journal of the Brazilian Society of Mechanical Sciences, 2000, 22, 411-421.	0.1	10
32	Robust Optimal Control Applied to a Composite Laminated Beam. Journal of Aerospace Technology and Management, 2015, 7, 70-80.	0.3	9
33	Experimental analysis of the SHBT approach for the dynamic modeling of a composite hollow shaft. Composite Structures, 2020, 236, 111892.	5.8	9
34	Dry-whip phenomenon in on-board rotordynamics: Modeling and experimentation. Journal of Sound and Vibration, 2021, 513, 116398.	3.9	9
35	Real-time structural health monitoring of fatigue crack on aluminum beam using an impedance-based portable device. Journal of Intelligent Material Systems and Structures, 2017, 28, 3152-3162.	2.5	8
36	A case study on frequency response optimization. International Journal of Solids and Structures, 2001, 38, 1737-1748.	2.7	7

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37	Shape optimization, model updating and empirical modeling applied to the design synthesis of a heavy truck side guard. International Journal of Solids and Structures, 2002, 39, 4747-4771.	2.7	6
38	Impedance-based fault detection methodology for rotating machines. Structural Health Monitoring, 2015, 14, 228-240.	7.5	6
39	Robust Multi-objective Optimization Applied to Engineering Systems Design. Latin American Journal of Solids and Structures, 2016, 13, 1802-1822.	1.0	6
40	Uncertain and sensitivity analyses of a composite shaft. Meccanica, 2020, 55, 35-48.	2.0	6
41	Sensitivity Analysis of Flexible Rotor Subjected to Interval Uncertainties. Latin American Journal of Solids and Structures, 2019, 16, .	1.0	5
42	Rotating machinery health evaluation by modal force identification. Inverse Problems in Science and Engineering, 2020, 28, 695-715.	1.2	5
43	Piezoelectric actuators applied to neutralize mechanical vibrations. JVC/Journal of Vibration and Control, 2012, 18, 1650-1660.	2.6	4
44	Post-critical analysis of ground resonance phenomenon: effect of stator asymmetry. Nonlinear Dynamics, 2016, 83, 201-215.	5.2	4
45	RELIABILITY-BASED MULTI-OBJECTIVE OPTIMIZATION APPLIED TO CHEMICAL ENGINEERING DESIGN. Brazilian Journal of Chemical Engineering, 2019, 36, 317-333.	1.3	4
46	Use of the electromechanical impedance method in the detection of inclusions: application to mammary tumors. Structural Health Monitoring, 2021, 20, 818-833.	7.5	4
47	Identification of a Non-Linear Landing Gear Model Using Nature-Inspired Optimization. Shock and Vibration, 2008, 15, 257-272.	0.6	3
48	Fault detection in a rotating shaft by using the electromechanical impedance method and a temperature compensation approach. Anais Do ... Congresso Ibero-Latino-Americano De Métodos Computacionais Em Engenharia, 0, , .	0.0	3
49	Aircraft longitudinal stability and control derivatives identification by using life cycle and Levenberg–Marquardt optimization algorithms. Inverse Problems in Science and Engineering, 2009, 17, 17-34.	1.2	2
50	Experimental validation of a robust model-based balancing approach. JVC/Journal of Vibration and Control, 2019, 25, 423-434.	2.6	2
51	Investigation of the favorable conditions to apply the combination resonances approach for crack detection purposes. JVC/Journal of Vibration and Control, 2020, 26, 1345-1355.	2.6	2
52	Numerical prediction and experimental validation of an onboard rotor under bending. Meccanica, 2021, 56, 2631-2650.	2.0	2
53	A shell based FEM model for thick walled composite rotors. , 2017, , .		2
54	Model-Based Inverse Problems in Structural Dynamics. , 2005, , 131-175.		1

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55	Application of Three Bioinspired Optimization Methods for the Design of a Nonlinear Mechanical System. Mathematical Problems in Engineering, 2013, 2013, 1-12.	1.1	1
56	16th Brazilian Congress of Mechanical Engineering: Symposium on Vibration and Acoustics. Shock and Vibration, 2002, 9, 153-153.	0.6	0
57	Authorsâ€™ reply to â€œDiscussion of â€˜Optimisation of dynamic vibration absorbers over a frequency bandâ€â€™, by Lu Yi and Gu Zhongquan. Mechanical Systems and Signal Processing, 2006, 20, 249-254.	8.0	0
58	DYNAMIC BEHAVIOR ANALYSIS ON HANDLING AND COMFORT OF A PASSENGER CAR. , 0, , .		0
59	Health monitoring of rotating structures: identification of cracks. , 0, , .		0
60	Analysis of the Dynamic Behavior of a Cracked Rotating Shaft by Using the Harmonic Balance Approach. Lecture Notes in Mechanical Engineering, 2019, , 31-45.	0.4	0
61	Active crack control approach applied to a horizontal rotating machine. JVC/Journal of Vibration and Control, 2023, 29, 2363-2373.	2.6	0
62	Modeling of laminated thick-walled shaft rotor accounting for onboard dynamics. Archive of Applied Mechanics, 0, , .	2.2	0