

Mohamed Haddar

List of Publications by Year in descending order

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115
papers

2,677
citations

236925

25
h-index

206112

48
g-index

126
all docs

126
docs citations

126
times ranked

1400
citing authors

#	ARTICLE	IF	CITATIONS
1	Analytical modelling of spur gear tooth crack and influence on gearmesh stiffness. <i>European Journal of Mechanics, A/Solids</i> , 2009, 28, 461-468.	3.7	338
2	Effect of spalling or tooth breakage on gearmesh stiffness and dynamic response of a one-stage spur gear transmission. <i>European Journal of Mechanics, A/Solids</i> , 2008, 27, 691-705.	3.7	282
3	Nonlinear dynamics of a two-stage gear system with mesh stiffness fluctuation, bearing flexibility and backlash. <i>Mechanism and Machine Theory</i> , 2009, 44, 1058-1069.	4.5	160
4	Modelling of gearbox dynamics under time-varying nonstationary load for distributed fault detection and diagnosis. <i>European Journal of Mechanics, A/Solids</i> , 2010, 29, 637-646.	3.7	125
5	Influence of manufacturing errors on the dynamic behavior of planetary gears. <i>International Journal of Advanced Manufacturing Technology</i> , 2006, 27, 738-746.	3.0	116
6	Gearbox Vibration Signal Amplitude and Frequency Modulation. <i>Shock and Vibration</i> , 2012, 19, 635-652.	0.6	75
7	Numerical and experimental analysis of a gear system with teeth defects. <i>International Journal of Advanced Manufacturing Technology</i> , 2005, 25, 542-550.	3.0	71
8	Static and fatigue characterization of flax fiber reinforced thermoplastic composites by acoustic emission. <i>Applied Acoustics</i> , 2019, 147, 100-110.	3.3	69
9	Experimental and theoretical investigation of the acoustic performance of sugarcane wastes based material. <i>Applied Acoustics</i> , 2016, 109, 90-96.	3.3	63
10	Experimental and analytical investigation of the bending behaviour of 3D-printed bio-based sandwich structures composites with auxetic core under cyclic fatigue tests. <i>Composites Part A: Applied Science and Manufacturing</i> , 2020, 131, 105775.	7.6	61
11	An acoustic-structural interaction modelling for the evaluation of a gearbox-radiated noise. <i>International Journal of Mechanical Sciences</i> , 2008, 50, 569-577.	6.7	46
12	Hydrodynamic and Elastohydrodynamic Studies of a Cylindrical Journal Bearing. <i>Journal of Hydrodynamics</i> , 2010, 22, 155-163.	3.2	45
13	Dynamic behavior of a two-stage gear train used in a fixed-speed wind turbine. <i>Mechanism and Machine Theory</i> , 2011, 46, 1888-1900.	4.5	45
14	Analysis of planetary gear transmission in non-stationary operations. <i>Frontiers of Mechanical Engineering</i> , 2013, 8, 88-94.	4.3	45
15	Characterization of the vibrational behaviour of flax fibre reinforced composites with an interleaved natural viscoelastic layer. <i>Applied Acoustics</i> , 2017, 128, 23-31.	3.3	44
16	Effects of variable loading conditions on the dynamic behaviour of planetary gear with power recirculation. <i>Measurement: Journal of the International Measurement Confederation</i> , 2016, 94, 306-315.	5.0	43
17	Dynamic vibrations in wind energy systems: Application to vertical axis wind turbine. <i>Mechanical Systems and Signal Processing</i> , 2017, 85, 396-414.	8.0	43
18	A theoretical model for analyzing the dynamic behavior of a misaligned rotor with active magnetic bearings. <i>Mechatronics</i> , 2011, 21, 899-907.	3.3	40

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19	A new modeling of planetary gear set to predict modulation phenomenon. <i>Mechanical Systems and Signal Processing</i> , 2019, 127, 234-261.	8.0	38
20	Digital twin-driven machine learning: ball bearings fault severity classification. <i>Measurement Science and Technology</i> , 2021, 32, 044006.	2.6	37
21	Intelligent PD controller design for active suspension system based on robust model-free control strategy. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2019, 233, 4863-4880.	2.1	31
22	Effect of manufacturing and assembly defects on two-stage gear systems vibration. <i>International Journal of Advanced Manufacturing Technology</i> , 2006, 29, 1008-1018.	3.0	28
23	A finite element for dynamic analysis of a cylindrical isotropic helical spring. <i>Journal of Mechanics of Materials and Structures</i> , 2008, 3, 641-658.	0.6	28
24	Dynamic behaviour of hydrodynamic journal bearings in presence of rotor spatial angular misalignment. <i>Mechanism and Machine Theory</i> , 2009, 44, 1548-1559.	4.5	27
25	Effect of load and meshing stiffness variation on modal properties of planetary gear. <i>Applied Acoustics</i> , 2019, 147, 32-43.	3.3	27
26	Dynamic behaviour modelling of a flexible gear system by the elastic foundation theory in presence of defects. <i>European Journal of Mechanics, A/Solids</i> , 2010, 29, 887-896.	3.7	26
27	Effects of eccentricity defect on the nonlinear dynamic behavior of the mechanism clutch-helical two stage gear. <i>Mechanism and Machine Theory</i> , 2011, 46, 986-997.	4.5	26
28	Acoustic characterization of a porous absorber based on recycled sugarcane wastes. <i>Applied Acoustics</i> , 2017, 120, 90-97.	3.3	26
29	Analytical Investigation on the Effect of Gear Teeth Faults on the Dynamic Response of a Planetary Gear Set. <i>Noise and Vibration Worldwide</i> , 2006, 37, 9-17.	1.0	25
30	A mixed-hybrid finite element for three-dimensional isotropic helical beam analysis. <i>International Journal of Mechanical Sciences</i> , 2005, 47, 209-229.	6.7	24
31	Dynamic optimization design of a cylindrical helical spring. <i>Applied Acoustics</i> , 2014, 77, 178-183.	3.3	24
32	Experimental and numerical analysis of the dynamic behavior of a bio-based sandwich with an auxetic core. <i>Journal of Sandwich Structures and Materials</i> , 2021, 23, 1058-1077.	3.5	23
33	Dynamic Characterization of a Bio-Based Sandwich with Auxetic Core: Experimental and Numerical Study. <i>International Journal of Applied Mechanics</i> , 2019, 11, 1950016.	2.2	23
34	An efficient optimization based on the robust hybrid method for the coupled acoustic-structural system. <i>Mechanics of Advanced Materials and Structures</i> , 2020, 27, 1816-1826.	2.6	23
35	Investigation of the Static Behavior and Failure Mechanisms of a 3D Printed Bio-Based Sandwich with Auxetic Core. <i>International Journal of Applied Mechanics</i> , 2020, 12, 2050051.	2.2	22
36	Transient response of a rotor-AMBs system connected by a flexible mechanical coupling. <i>Mechatronics</i> , 2013, 23, 573-580.	3.3	21

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37	An efficient reliability-based design optimization study for PCM-based heat-sink used for cooling electronic devices. <i>Mechanics of Advanced Materials and Structures</i> , 2022, 29, 1661-1673.	2.6	21
38	Damping Analysis of Unidirectional Carbon/Flax Fiber Hybrid Composites. <i>International Journal of Applied Mechanics</i> , 2018, 10, 1850050.	2.2	20
39	Dynamic modelling of differential bevel gear system in the presence of a defect. <i>Mechanism and Machine Theory</i> , 2019, 139, 81-108.	4.5	20
40	Multidisciplinary approach for optimizing mechatronic systems: Application to the optimal design of an electric vehicle. , 2014, , .		18
41	Dynamic behaviour of a wind turbine gear system with uncertainties. <i>Comptes Rendus - Mecanique</i> , 2016, 344, 375-387.	2.1	18
42	A Simple Condition Monitoring Method for Gearboxes Operating in Impulsive Environments. <i>Sensors</i> , 2020, 20, 2115.	3.8	17
43	Dynamic characteristics of a wind turbine gearbox with amplitude modulation and gravity effect: Theoretical and experimental investigation. <i>Mechanism and Machine Theory</i> , 2022, 167, 104468.	4.5	16
44	Free vibration analysis of hybrid laminated plates containing multilayer functionally graded carbon nanotube-reinforced composite plies using a layer-wise formulation. <i>Archive of Applied Mechanics</i> , 2021, 91, 463-485.	2.2	15
45	Experimental fatigue behavior of carbon/flax hybrid composites under tensile loading. <i>Journal of Composite Materials</i> , 2021, 55, 581-596.	2.4	15
46	An approach for the reliability-based design optimization of shape memory alloy structure. <i>Mechanics Based Design of Structures and Machines</i> , 2021, 49, 155-171.	4.7	15
47	Road profile identification with an algebraic estimator. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2019, 233, 1139-1155.	2.1	14
48	Influence of the non-linear Hertzian stiffness on the dynamics of a spur gear system under transient regime and tooth defects. <i>International Journal of Vehicle Noise and Vibration</i> , 2011, 7, 149.	0.1	12
49	Acoustic Analysis of Hydrodynamic and Elasto-Hydrodynamic Oil Lubricated Journal Bearings. <i>Journal of Hydrodynamics</i> , 2012, 24, 250-256.	3.2	12
50	Effect of elastic coupling on the modal characteristics of spur gearbox system. <i>Applied Acoustics</i> , 2019, 144, 71-84.	3.3	12
51	Numerical model of a single stage gearbox under variable regime. <i>Mechanics Based Design of Structures and Machines</i> , 2023, 51, 1054-1081.	4.7	12
52	Effect of manufacturing defects on the dynamic behaviour for an helical two-stage gear system. <i>Mecanique Et Industries</i> , 2009, 10, 365-376.	0.2	11
53	Angular-based modeling of induction motors for monitoring. <i>Journal of Sound and Vibration</i> , 2017, 395, 371-392.	3.9	11
54	Damping models identification of a spur gear pair. <i>Mechanism and Machine Theory</i> , 2018, 122, 371-388.	4.5	11

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55	Modeling of a passive absorber in milling tool machine. Applied Acoustics, 2017, 128, 94-110.	3.3	10
56	Surrogate models for uncertainty analysis of micro-actuator. Microsystem Technologies, 2020, 26, 2589-2600.	2.0	10
57	Effect of Load Shape in Cyclic Load Variation on Dynamic Behavior of Spur Gear System. Key Engineering Materials, 0, 518, 119-126.	0.4	9
58	Damage mechanisms characterization of flax fibers reinforced composites with interleaved natural viscoelastic layer using acoustic emission analysis. Journal of Composite Materials, 2019, 53, 2623-2637.	2.4	8
59	Vibrations monitoring of high speed spindle with active magnetic bearings in presence of defects. International Journal of Applied Electromagnetics and Mechanics, 2015, 49, 207-221.	0.6	7
60	Uncertainty and sensitivity analysis of porous materials acoustic behavior. Applied Acoustics, 2019, 144, 64-70.	3.3	7
61	Intelligent optimal controller design applied to quarter car model based on non-asymptotic observer for improved vehicle dynamics. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2021, 235, 929-942.	1.0	7
62	Effect of hydric aging on the static and vibration behavior of 3D printed bio-based flax fiber reinforced poly-lactic acid composites. Polymers and Polymer Composites, 2022, 30, 096739112210818.	1.9	7
63	Topological approach to solve 2D truss structure using MGS language. , 2012, , .		6
64	Vibration Behavior of Composite Material with Two Overlapping Delaminations. International Journal of Applied Mechanics, 2015, 07, 1550054.	2.2	6
65	Dynamic effects on spur gear pairs power loss lubricated with axle gear oils. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2020, 234, 1069-1084.	2.1	6
66	Non-probabilistic interval process method for analyzing two-stage straight bevel gear system with uncertain time-varying parameters. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2021, 235, 3162-3178.	2.1	6
67	Dynamic behavior of the nonlinear planetary gear model in nonstationary conditions. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2021, 235, 4648-4662.	2.1	6
68	Modeling and experimentation of creep-fatigue and failure of low-profile quad flat package under thermal cycle. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2020, 234, 4277-4287.	2.1	6
69	Agent-based approach for collaborative distributed mechatronic design. , 2014, , .		5
70	Dynamic analysis of gearbox behaviour in milling process: Non-stationary operations. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2016, 230, 3372-3388.	2.1	5
71	Early Detection of Gear Faults in Variable Load and Local Defect Size Using Ensemble Empirical Mode Decomposition (EEMD). Applied Condition Monitoring, 2017, , 13-22.	0.4	5
72	Frictional dynamic model predictions of FZG-A10 spur gear pairs considering profile errors. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2021, 235, 1390-1404.	1.8	5

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73	On the Optimization of a Multimodal Electromagnetic Vibration Energy Harvester Using Mode Localization and Nonlinear Dynamics. <i>Actuators</i> , 2021, 10, 25.	2.3	5
74	ASYMPTOTIC NUMERICAL METHOD FOR THE DYNAMIC STUDY OF NONLINEAR VIBRATION ABSORBERS. <i>International Journal of Applied Mechanics</i> , 2014, 06, 1450053.	2.2	4
75	Application of the Independent Components Analysis in the Reconstruction of Acoustic Sources in Duct Systems. <i>Arabian Journal for Science and Engineering</i> , 2016, 41, 4597-4606.	1.1	4
76	General tolerance for mechatronic system. , 2017, , .		4
77	EMC risk assessment process through a topological analysis. , 2018, , .		4
78	Application of homogeneous observers with variable exponent to a mechatronic system. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2019, 233, 6491-6502.	2.1	4
79	L-Kurtosis and Improved Complete Ensemble EMD in Early Fault Detection Under Variable Load and Speed. <i>Applied Condition Monitoring</i> , 2019, , 3-15.	0.4	4
80	Modeling and experimental investigation of damage initiation and propagation of LQFP package under thermal cycle. <i>Microsystem Technologies</i> , 2020, 26, 3011-3021.	2.0	4
81	A robust method for the reliability-based design optimization of shape memory alloy actuator. <i>Mechanics Based Design of Structures and Machines</i> , 2023, 51, 1563-1581.	4.7	4
82	Health monitoring of sandwich composites with auxetic core subjected to indentation tests using acoustic emission. <i>Structural Health Monitoring</i> , 2022, 21, 2264-2275.	7.5	4
83	Parametric Tolerance Specification of an Electromechanical Actuator. , 2018, , .		3
84	Modified equivalent single layer theory for dynamic analysis of rotating composite shafts. <i>Mechanics of Advanced Materials and Structures</i> , 2021, 28, 2399-2407.	2.6	3
85	Integration of Electromagnetic Constraints as of the Conceptual Design Through an MBSE Approach. <i>IEEE Systems Journal</i> , 2021, 15, 747-758.	4.6	3
86	Order-Based Identification of Bearing Defects under Variable Speed Condition. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 3962.	2.5	3
87	Experimental studies of mechanical behavior and damage mechanisms of recycled flax/Elium thermoplastic composite. <i>Polymers and Polymer Composites</i> , 2022, 30, 096739112210900.	1.9	3
88	Modeling of Gear Transmissions Dynamics in Non-stationary Conditions. <i>Lecture Notes in Mechanical Engineering</i> , 2014, , 109-124.	0.4	2
89	Characterization of sandwich beams with shear damages by linear and nonlinear vibration methods. <i>Journal of Composite Materials</i> , 2018, 52, 47-60.	2.4	2
90	Tensile Fatigue Behavior of Carbon-Flax/Epoxy Hybrid Composites. <i>Applied Condition Monitoring</i> , 2019, , 284-291.	0.4	2

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91	Uncertainty of shape memory alloy micro-actuator using generalized polynomial chaos method. <i>Microsystem Technologies</i> , 2019, 25, 1505-1517.	2.0	2
92	Analysis of Strongly Nonlinear Systems by Using HBM-AFT Method and Its Comparison with the Five-Order Runge-Kutta Method: Application to Duffing Oscillator and Disc Brake Model. <i>International Journal of Applied and Computational Mathematics</i> , 2020, 6, 1.	1.6	2
93	Variational approach for robust design and sensitivity analysis of mechatronic systems. <i>Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an</i> , 2020, 43, 357-364.	1.1	2
94	Rayleigh Damping Coefficients Identification Using the Wavelet Transform on Two Stage Gear System. <i>Lecture Notes in Mechanical Engineering</i> , 2020, , 204-213.	0.4	2
95	Coupling PCM-based Heat Sinks finite elements model for mechatronic devices with Design Optimization procedure. , 2020, , .		2
96	Investigation of Parameters Affecting the Acoustic Absorption Coefficient of Industrial Liners. <i>Lecture Notes in Mechanical Engineering</i> , 2018, , 1149-1158.	0.4	1
97	Dynamic Behavior of Spur Gearbox with Elastic Coupling in the Presence of Eccentricity Defect Under Acyclism Regime. <i>Applied Condition Monitoring</i> , 2019, , 123-132.	0.4	1
98	The Effect of the Brake Location and Gear Defects on the Dynamic Behavior of a Wind Turbine. <i>Arabian Journal for Science and Engineering</i> , 2020, 45, 5421-5433.	3.0	1
99	A New Dynamic Model for Worm Drives. <i>Applied Condition Monitoring</i> , 2021, , 235-242.	0.4	1
100	Gearbox Fault Identification Under Non-Gaussian Noise and Time-Varying Operating Conditions. <i>Applied Condition Monitoring</i> , 2021, , 1-9.	0.4	1
101	Vibration analysis of nonlinear powertrain model with randomly cracked teeth under acyclism operation. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2021, 43, 1.	1.6	1
102	Effects of the interval geometric deviation and crowning parameters on the automotive differential dynamics. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 0, , 146441932110394.	0.8	1
103	A Polynomial Chaos Method for the Analysis of Uncertain Spur Gear System. <i>Lecture Notes in Mechanical Engineering</i> , 2014, , 89-97.	0.4	1
104	Exploiting Nonlinear Dynamics and Energy Localization to Enhance the Performances of an Electromagnetic Vibration Energy Harvester. , 2019, , .		1
105	Effects of interval friction coefficients on the differential mechanism dynamics. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2022, 236, 3268-3295.	1.9	1
106	Simulation-Based Process Design for Asymmetric Single-Point Incremental Forming of Individual Titanium Alloy Hip Cup Prosthesis. <i>Materials</i> , 2022, 15, 3442.	2.9	1
107	Effects of aerodynamic excitations on the dynamic behavior of helical gear system. <i>Multidiscipline Modeling in Materials and Structures</i> , 2012, 8, 178-196.	1.3	0
108	A Probabilistic approach to the robust thermo-mechanical analysis of Ball Grid Array Solder Joints. , 2019, , .		0

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109	Analytical approach and numerical simulation to investigate the stress field and the dynamic stress intensity factors of a cracked tooth subjected to a periodic loading. <i>Mechanics and Industry</i> , 2019, 20, 629.	1.3	0
110	Dynamic Interaction Between Transmission Error and Friction Coefficients for FZG-A10 Spur Gears. <i>Applied Condition Monitoring</i> , 2021, , 136-144.	0.4	0
111	Effects of mass imbalance and eccentricity defects on the automotive differential dynamics. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2021, 43, 1.	1.6	0
112	Water Aging Effect on the Vibration Behavior of the Bio-Based Flax/PLA Composites. <i>Lecture Notes in Mechanical Engineering</i> , 2022, , 156-163.	0.4	0
113	The Time-Frequency Filtering (TFF) Method Used in Early Detection of Gear Faults in Variable Load and Dimensions Defect. <i>Applied Condition Monitoring</i> , 2019, , 56-67.	0.4	0
114	Parametric Study of a Minimal Model of Wind Turbine Drivetrain System. <i>Lecture Notes in Mechanical Engineering</i> , 2020, , 125-132.	0.4	0
115	Estimation of the damping model of a spur gear pair system including a time-varying loading. <i>Comptes Rendus - Mecanique</i> , 2022, 350, 255-267.	0.7	0