

# Mohamed Haddar

## List of Publications by Year in descending order

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115  
papers

2,677  
citations

236925

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126  
all docs

126  
docs citations

126  
times ranked

1400  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	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
4	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
5	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
6	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
7	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
8	Effect of hydric aging on the static and vibration behavior of 3D printed bio-based flax fiber reinforced poly-lactic acid composites. <i>Polymers and Polymer Composites</i> , 2022, 30, 096739112210818.	1.9	7
9	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
10	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
11	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
12	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
13	Non-probabilistic interval process method for analyzing two-stage straight bevel gear system with uncertain time-varying parameters. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2021, 235, 3162-3178.	2.1	6
14	Dynamic behavior of the nonlinear planetary gear model in nonstationary conditions. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2021, 235, 4648-4662.	2.1	6
15	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
16	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
17	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
18	Intelligent optimal controller design applied to quarter car model based on non-asymptotic observer for improved vehicle dynamics. <i>Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering</i> , 2021, 235, 929-942.	1.0	7

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19	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
20	Experimental fatigue behavior of carbon/flax hybrid composites under tensile loading. Journal of Composite Materials, 2021, 55, 581-596.	2.4	15
21	An approach for the reliability-based design optimization of shape memory alloy structure. Mechanics Based Design of Structures and Machines, 2021, 49, 155-171.	4.7	15
22	On the Optimization of a Multimodal Electromagnetic Vibration Energy Harvester Using Mode Localization and Nonlinear Dynamics. Actuators, 2021, 10, 25.	2.3	5
23	Dynamic Interaction Between Transmission Error and Friction Coefficients for FZG-A10 Spur Gears. Applied Condition Monitoring, 2021, , 136-144.	0.4	0
24	A New Dynamic Model for Worm Drives. Applied Condition Monitoring, 2021, , 235-242.	0.4	1
25	Gearbox Fault Identification Under Non-Gaussian Noise and Time-Varying Operating Conditions. Applied Condition Monitoring, 2021, , 1-9.	0.4	1
26	Digital twin-driven machine learning: ball bearings fault severity classification. Measurement Science and Technology, 2021, 32, 044006.	2.6	37
27	Order-Based Identification of Bearing Defects under Variable Speed Condition. Applied Sciences (Switzerland), 2021, 11, 3962.	2.5	3
28	Vibration analysis of nonlinear powertrain model with randomly cracked teeth under acyclism operation. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2021, 43, 1.	1.6	1
29	Effects of mass imbalance and eccentricity defects on the automotive differential dynamics. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2021, 43, 1.	1.6	0
30	An efficient optimization based on the robust hybrid method for the coupled acoustic-structural system. Mechanics of Advanced Materials and Structures, 2020, 27, 1816-1826.	2.6	23
31	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
32	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
33	Investigation of the Static Behavior and Failure Mechanisms of a 3D Printed Bio-Based Sandwich with Auxetic Core. International Journal of Applied Mechanics, 2020, 12, 2050051.	2.2	22
34	Modeling and experimental investigation of damage initiation and propagation of LQFP package under thermal cycle. Microsystem Technologies, 2020, 26, 3011-3021.	2.0	4
35	Surrogate models for uncertainty analysis of micro-actuator. Microsystem Technologies, 2020, 26, 2589-2600.	2.0	10
36	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. International Journal of Applied and Computational Mathematics, 2020, 6, 1.	1.6	2

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37	The Effect of the Brake Location and Gear Defects on the Dynamic Behavior of a Wind Turbine. Arabian Journal for Science and Engineering, 2020, 45, 5421-5433.	3.0	1
38	Variational approach for robust design and sensitivity analysis of mechatronic systems. Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an, 2020, 43, 357-364.	1.1	2
39	Experimental and analytical investigation of the bending behaviour of 3D-printed bio-based sandwich structures composites with auxetic core under cyclic fatigue tests. Composites Part A: Applied Science and Manufacturing, 2020, 131, 105775.	7.6	61
40	A Simple Condition Monitoring Method for Gearboxes Operating in Impulsive Environments. Sensors, 2020, 20, 2115.	3.8	17
41	Rayleigh Damping Coefficients Identification Using the Wavelet Transform on Two Stage Gear System. Lecture Notes in Mechanical Engineering, 2020, , 204-213.	0.4	2
42	Coupling PCM-based Heat Sinks finite elements model for mechatronic devices with Design Optimization procedure. , 2020, , .		2
43	Parametric Study of a Minimal Model of Wind Turbine Drivetrain System. Lecture Notes in Mechanical Engineering, 2020, , 125-132.	0.4	0
44	Dynamic Behavior of Spur Gearbox with Elastic Coupling in the Presence of Eccentricity Defect Under Acyclism Regime. Applied Condition Monitoring, 2019, , 123-132.	0.4	1
45	Application of homogeneous observers with variable exponent to a mechatronic system. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2019, 233, 6491-6502.	2.1	4
46	A Probabilistic approach to the robust thermo-mechanical analysis of Ball Grid Array Solder Joints. , 2019, , .		0
47	Dynamic modelling of differential bevel gear system in the presence of a defect. Mechanism and Machine Theory, 2019, 139, 81-108.	4.5	20
48	Intelligent PD controller design for active suspension system based on robust model-free control strategy. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2019, 233, 4863-4880.	2.1	31
49	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
50	A new modeling of planetary gear set to predict modulation phenomenon. Mechanical Systems and Signal Processing, 2019, 127, 234-261.	8.0	38
51	Dynamic Characterization of a Bio-Based Sandwich with Auxetic Core: Experimental and Numerical Study. International Journal of Applied Mechanics, 2019, 11, 1950016.	2.2	23
52	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. Mechanics and Industry, 2019, 20, 629.	1.3	0
53	L-Kurtosis and Improved Complete Ensemble EMD in Early Fault Detection Under Variable Load and Speed. Applied Condition Monitoring, 2019, , 3-15.	0.4	4
54	Tensile Fatigue Behavior of Carbon-Flax/Epoxy Hybrid Composites. Applied Condition Monitoring, 2019, , 284-291.	0.4	2

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55	Uncertainty of shape memory alloy micro-actuator using generalized polynomial chaos method. <i>Microsystem Technologies</i> , 2019, 25, 1505-1517.	2.0	2
56	Effect of elastic coupling on the modal characteristics of spur gearbox system. <i>Applied Acoustics</i> , 2019, 144, 71-84.	3.3	12
57	Effect of load and meshing stiffness variation on modal properties of planetary gear. <i>Applied Acoustics</i> , 2019, 147, 32-43.	3.3	27
58	Static and fatigue characterization of flax fiber reinforced thermoplastic composites by acoustic emission. <i>Applied Acoustics</i> , 2019, 147, 100-110.	3.3	69
59	Uncertainty and sensitivity analysis of porous materials acoustic behavior. <i>Applied Acoustics</i> , 2019, 144, 64-70.	3.3	7
60	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
61	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
62	Exploiting Nonlinear Dynamics and Energy Localization to Enhance the Performances of an Electromagnetic Vibration Energy Harvester. , 2019, , .		1
63	Damping models identification of a spur gear pair. <i>Mechanism and Machine Theory</i> , 2018, 122, 371-388.	4.5	11
64	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
65	Investigation of Parameters Affecting the Acoustic Absorption Coefficient of Industrial Liners. <i>Lecture Notes in Mechanical Engineering</i> , 2018, , 1149-1158.	0.4	1
66	Parametric Tolerance Specification of an Electromechanical Actuator. , 2018, , .		3
67	EMC risk assessment process through a topological analysis. , 2018, , .		4
68	Damping Analysis of Unidirectional Carbon/Flax Fiber Hybrid Composites. <i>International Journal of Applied Mechanics</i> , 2018, 10, 1850050.	2.2	20
69	Acoustic characterization of a porous absorber based on recycled sugarcane wastes. <i>Applied Acoustics</i> , 2017, 120, 90-97.	3.3	26
70	Angular-based modeling of induction motors for monitoring. <i>Journal of Sound and Vibration</i> , 2017, 395, 371-392.	3.9	11
71	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
72	Modeling of a passive absorber in milling tool machine. <i>Applied Acoustics</i> , 2017, 128, 94-110.	3.3	10

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73	Dynamic vibrations in wind energy systems: Application to vertical axis wind turbine. Mechanical Systems and Signal Processing, 2017, 85, 396-414.	8.0	43
74	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
75	General tolerance for mechatronic system. , 2017, , .		4
76	Dynamic behaviour of a wind turbine gear system with uncertainties. Comptes Rendus - Mecanique, 2016, 344, 375-387.	2.1	18
77	Experimental and theoretical investigation of the acoustic performance of sugarcane wastes based material. Applied Acoustics, 2016, 109, 90-96.	3.3	63
78	Effects of variable loading conditions on the dynamic behaviour of planetary gear with power recirculation. Measurement: Journal of the International Measurement Confederation, 2016, 94, 306-315.	5.0	43
79	Application of the Independent Components Analysis in the Reconstruction of Acoustic Sources in Duct Systems. Arabian Journal for Science and Engineering, 2016, 41, 4597-4606.	1.1	4
80	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
81	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
82	Vibration Behavior of Composite Material with Two Overlapping Delaminations. International Journal of Applied Mechanics, 2015, 07, 1550054.	2.2	6
83	ASYMPTOTIC NUMERICAL METHOD FOR THE DYNAMIC STUDY OF NONLINEAR VIBRATION ABSORBERS. International Journal of Applied Mechanics, 2014, 06, 1450053.	2.2	4
84	Agent-based approach for collaborative distributed mechatronic design. , 2014, , .		5
85	Modeling of Gear Transmissions Dynamics in Non-stationary Conditions. Lecture Notes in Mechanical Engineering, 2014, , 109-124.	0.4	2
86	Dynamic optimization design of a cylindrical helical spring. Applied Acoustics, 2014, 77, 178-183.	3.3	24
87	Multidisciplinary approach for optimizing mechatronic systems: Application to the optimal design of an electric vehicle. , 2014, , .		18
88	A Polynomial Chaos Method for the Analysis of Uncertain Spur Gear System. Lecture Notes in Mechanical Engineering, 2014, , 89-97.	0.4	1
89	Analysis of planetary gear transmission in non-stationary operations. Frontiers of Mechanical Engineering, 2013, 8, 88-94.	4.3	45
90	Transient response of a rotor-AMBs system connected by a flexible mechanical coupling. Mechatronics, 2013, 23, 573-580.	3.3	21

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91	Acoustic Analysis of Hydrodynamic and Elasto-Hydrodynamic Oil Lubricated Journal Bearings. Journal of Hydrodynamics, 2012, 24, 250-256.	3.2	12
92	Topological approach to solve 2D truss structure using MGS language. , 2012, , .		6
93	Effects of aerodynamic excitations on the dynamic behavior of helical gear system. Multidiscipline Modeling in Materials and Structures, 2012, 8, 178-196.	1.3	0
94	Gearbox Vibration Signal Amplitude and Frequency Modulation. Shock and Vibration, 2012, 19, 635-652.	0.6	75
95	Influence of the non-linear Hertzian stiffness on the dynamics of a spur gear system under transient regime and tooth defects. International Journal of Vehicle Noise and Vibration, 2011, 7, 149.	0.1	12
96	A theoretical model for analyzing the dynamic behavior of a misaligned rotor with active magnetic bearings. Mechatronics, 2011, 21, 899-907.	3.3	40
97	Dynamic behavior of a two-stage gear train used in a fixed-speed wind turbine. Mechanism and Machine Theory, 2011, 46, 1888-1900.	4.5	45
98	Effects of eccentricity defect on the nonlinear dynamic behavior of the mechanism clutch-helical two stage gear. Mechanism and Machine Theory, 2011, 46, 986-997.	4.5	26
99	Modelling of gearbox dynamics under time-varying nonstationary load for distributed fault detection and diagnosis. European Journal of Mechanics, A/Solids, 2010, 29, 637-646.	3.7	125
100	Dynamic behaviour modelling of a flexible gear system by the elastic foundation theory in presence of defects. European Journal of Mechanics, A/Solids, 2010, 29, 887-896.	3.7	26
101	Hydrodynamic and Elasto-hydrodynamic Studies of a Cylindrical Journal Bearing. Journal of Hydrodynamics, 2010, 22, 155-163.	3.2	45
102	Nonlinear dynamics of a two-stage gear system with mesh stiffness fluctuation, bearing flexibility and backlash. Mechanism and Machine Theory, 2009, 44, 1058-1069.	4.5	160
103	Dynamic behaviour of hydrodynamic journal bearings in presence of rotor spatial angular misalignment. Mechanism and Machine Theory, 2009, 44, 1548-1559.	4.5	27
104	Analytical modelling of spur gear tooth crack and influence on gearmesh stiffness. European Journal of Mechanics, A/Solids, 2009, 28, 461-468.	3.7	338
105	Effect of manufacturing defects on the dynamic behaviour for an helical two-stage gear system. Mecanique Et Industries, 2009, 10, 365-376.	0.2	11
106	Effect of spalling or tooth breakage on gearmesh stiffness and dynamic response of a one-stage spur gear transmission. European Journal of Mechanics, A/Solids, 2008, 27, 691-705.	3.7	282
107	An acoustic-structural interaction modelling for the evaluation of a gearbox-radiated noise. International Journal of Mechanical Sciences, 2008, 50, 569-577.	6.7	46
108	A finite element for dynamic analysis of a cylindrical isotropic helical spring. Journal of Mechanics of Materials and Structures, 2008, 3, 641-658.	0.6	28

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109	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
110	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
111	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
112	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
113	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
114	Effect of Load Shape in Cyclic Load Variation on Dynamic Behavior of Spur Gear System. <i>Key Engineering Materials</i> , 0, 518, 119-126.	0.4	9
115	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