

Hemantha Kumar

List of Publications by Year in descending order

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63
papers

966
citations

471509

17
h-index

526287

27
g-index

64
all docs

64
docs citations

64
times ranked

577
citing authors

#	ARTICLE	IF	CITATIONS
1	Exploiting sound signals for fault diagnosis of bearings using decision tree. Measurement: Journal of the International Measurement Confederation, 2013, 46, 1250-1256.	5.0	122
2	Condition monitoring of face milling tool using K-star algorithm and histogram features of vibration signal. Engineering Science and Technology, an International Journal, 2016, 19, 1543-1551.	3.2	56
3	Gearbox fault diagnosis based on Multi-Scale deep residual learning and stacked LSTM model. Measurement: Journal of the International Measurement Confederation, 2021, 186, 110099.	5.0	51
4	Optimisation of monotube magnetorheological damper under shear mode. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017, 39, 2225-2240.	1.6	33
5	Fault Diagnosis of Face Milling Tool using Decision Tree and Sound Signal. Materials Today: Proceedings, 2018, 5, 12035-12044.	1.8	33
6	Fault Diagnosis of Single Point Cutting Tool through Vibration Signal Using Decision Tree Algorithm. , 2014, 5, 1434-1441.		32
7	Face milling tool condition monitoring using sound signal. International Journal of Systems Assurance Engineering and Management, 2017, 8, 1643-1653.	2.4	31
8	Gear Fault Detection Using Vibration Analysis and Continuous Wavelet Transform. , 2014, 5, 1846-1852.		30
9	Vertical dynamic analysis of a quarter car suspension system with MR damper. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017, 39, 41-51.	1.6	30
10	An approach for characterizing twin-tube shear-mode magnetorheological damper through coupled FE and CFD analysis. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2018, 40, 1.	1.6	30
11	Evaluation of optimal parameters of MR fluids for damper application using particle swarm and response surface optimisation. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017, 39, 3683-3694.	1.6	26
12	Design and experimental characterization of a twin-tube MR damper for a passenger van. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2019, 41, 1.	1.6	26
13	Determination of optimal magnetorheological fluid particle loading and size for shear mode monotube damper. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2019, 41, 1.	1.6	26
14	Influence of additives on the synthesis of carbonyl iron suspension on rheological and sedimentation properties of magnetorheological (MR) fluids. Materials Research Express, 2019, 6, 086105.	1.6	25
15	Influence of different fumed silica as thixotropic additive on carbonyl particles magnetorheological fluids for sedimentation effects. Journal of Magnetism and Magnetic Materials, 2021, 529, 167910.	2.3	24
16	Experimental investigation on effects of varying volume fractions of SiC nanoparticle reinforcement on microstructure and mechanical properties in friction-stir-welded dissimilar joints of AA2024-T351 and AA7075-T651. Journal of Materials Research, 2019, 34, 1229-1247.	2.6	23
17	Dynamic Analysis of a Quarter Car Model with Semi-Active Seat Suspension Using a Novel Model for Magneto-Rheological (MR) Damper. Journal of Vibration Engineering and Technologies, 2021, 9, 161-176.	2.2	23
18	Engine gearbox fault diagnosis using empirical mode decomposition method and Naïve Bayes algorithm. Sadhana - Academy Proceedings in Engineering Sciences, 2017, 42, 1143-1153.	1.3	21

#	ARTICLE	IF	CITATIONS
19	Optimization of Magneto-Rheological Damper for Maximizing Magnetic Flux Density in the Fluid Flow Gap Through FEA and GA Approaches. Journal of the Institution of Engineers (India): Series C, 2017, 98, 533-539.	1.2	20
20	Evaluation of a commercial MR damper for application in semi-active suspension. SN Applied Sciences, 2019, 1, 1.	2.9	20
21	Fault diagnosis of bearings through vibration signal using Bayes classifiers. International Journal of Computer Aided Engineering and Technology, 2014, 6, 14.	0.2	19
22	Comparative Study on Tool Fault Diagnosis Methods Using Vibration Signals and Cutting Force Signals by Machine Learning Technique. SDHM Structural Durability and Health Monitoring, 2020, 14, 127-145.	1.1	17
23	Performance analysis of a semi-active suspension system using coupled CFD-FEA based non-parametric modeling of low capacity shear mode monotube MR damper. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2019, 233, 1214-1231.	1.9	16
24	Design of bypass rotary vane magnetorheological damper for prosthetic knee application. Journal of Intelligent Material Systems and Structures, 2021, 32, 931-942.	2.5	16
25	A Bottom-Up Optimization Approach for Friction Stir Welding Parameters of Dissimilar AA2024-T351 and AA7075-T651 Alloys. Journal of Materials Engineering and Performance, 2017, 26, 3347-3367.	2.5	16
26	Characterization of magnetorheological brake utilizing synthesized and commercial fluids. Materials Today: Proceedings, 2020, 46, 9419-9419.	1.8	14
27	Classification of gear faults in internal combustion (IC) engine gearbox using discrete wavelet transform features and K star algorithm. Engineering Science and Technology, an International Journal, 2022, 30, 101048.	3.2	14
28	Dynamic analysis and optimization of SiC reinforced Al6082 and Al7075 MMCs. Materials Research Express, 2019, 6, 056528.	1.6	13
29	Effect of temperature on sedimentation stability and flow characteristics of magnetorheological fluids with damper as the performance analyser. Journal of Magnetism and Magnetic Materials, 2022, 555, 169342.	2.3	12
30	Investigation of sedimentation, rheological, and damping force characteristics of carbonyl iron magnetorheological fluid with/without additives. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1.	1.6	11
31	Influence of temperature on magnetorheological fluid properties and damping performance. Smart Materials and Structures, 2022, 31, 055018.	3.5	11
32	Synthesis of magnetorheological fluid and its application in a twin-tube valve mode automotive damper. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2020, 234, 1001-1016.	1.1	10
33	Semi-active vibration control of SiC-reinforced Al6082 metal matrix composite sandwich beam with magnetorheological fluid core. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2020, 234, 408-424.	1.1	9
34	Design and development of MR damper for two wheeler application and Kwok model parameters tuning for designed damper. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2022, 236, 1595-1606.	1.9	9
35	Selection of optimal composition of MR fluid for a brake designed using MOGA optimization coupled with magnetic FEA analysis. Journal of Intelligent Material Systems and Structures, 2021, 32, 1831-1854.	2.5	9
36	Fault Diagnosis of Welded Joints through Vibration Signals Using Naïve Bayes Algorithm. , 2014, 5, 1922-1928.		8

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37	Analysis of MR Damper Based on Finite Element Approach. Applied Mechanics and Materials, 0, 592-594, 2006-2010.	0.2	6
38	Fault diagnosis of internal combustion engine gearbox using vibration signals based on signal processing techniques. Journal of Quality in Maintenance Engineering, 2021, 27, 385-412.	1.7	6
39	Dynamic behavior of sandwich beams with different compositions of magnetorheological fluid core. International Journal of Smart and Nano Materials, 2021, 12, 88-106.	4.2	6
40	Effect of tool rotation speed on microstructure and tensile properties of FSW joints of 2024-T351 and 7075-T651 reinforced with SiC nano particle: The role of FSW single pass. AIP Conference Proceedings, 2018, , .	0.4	5
41	Fault diagnosis of single-point cutting tool using vibration signal by rotation forest algorithm. SN Applied Sciences, 2019, 1, 1.	2.9	5
42	Investigation of magnetorheological brake with rotor of combined magnetic and non-magnetic materials. SN Applied Sciences, 2019, 1, 1.	2.9	5
43	Performance Evaluation of a Single Sensor Control Scheme Using a Twin-Tube MR Damper Based Semi-active Suspension. Journal of Vibration Engineering and Technologies, 2021, 9, 1193-1210.	2.2	5
44	Semi-active vibration control of MRF core PMC cantilever sandwich beams: Experimental study. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2020, 234, 574-585.	1.1	5
45	Design of twin-rod flow mode magneto rheological damper for prosthetic knee application. AIP Conference Proceedings, 2019, , .	0.4	4
46	Optimal design of inverted rotary MR brake with waveform boundary using a novel combined magnetostatic approach. Smart Materials and Structures, 2020, 29, 105014.	3.5	4
47	Application of vibration analysis and data mining techniques for bearing fault diagnosis in two stroke IC engine gearbox. AIP Conference Proceedings, 2020, , .	0.4	3
48	Semi-active control of a swing phase dynamic model of transfemoral prosthetic device based on inverse dynamic model. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1.	1.6	3
49	Effect of magnetic permeability, shearing length, and shear gap on magnetic flux density of the magnetorheological damper through finite element analysis. Materials Today: Proceedings, 2021, 39, 1613-1619.	1.8	3
50	Free vibration analysis and selection of composite for high strength and stiffness using multi-attribute decision making. International Journal of Materials Research, 2021, 112, 189-197.	0.3	3
51	Performance Evaluation of Magneto-Rheological Damper Through Characterization Testing, Modeling and its Implementation in Quarter Car. Journal of Vibration Engineering and Technologies, 2022, 10, 967-983.	2.2	3
52	Multi objective optimization of quarter car parameters for better ride comfort and road holding. AIP Conference Proceedings, 2019, , .	0.4	2
53	Fault diagnosis of antifriction bearing in internal combustion engine gearbox using data mining techniques. International Journal of Systems Assurance Engineering and Management, 2022, 13, 1121-1134.	2.4	2
54	Optimal Design of Rotary Magneto-Rheological Drum Brake for Transfemoral Prosthesis. Lecture Notes in Mechanical Engineering, 2021, , 465-474.	0.4	2

#	ARTICLE	IF	CITATIONS
55	Design and development of magneto-rheological brake for optimum casing thickness. , 2017, , .		1
56	The effect of inclination angle of shock absorber on ride comfort and road holding of two-wheeled vehicle. AIP Conference Proceedings, 2020, , .	0.4	1
57	Experimental investigation of frequency and damping characteristics of magneto-rheological fluid core sandwich beams. AIP Conference Proceedings, 2020, , .	0.4	1
58	Design, characterization and control of MR damper for two-wheeler applications. Materials Today: Proceedings, 2022, 62, 2056-2063.	1.8	1
59	Impact of increased particle concentration on magnetorheological fluid properties and their damping performance. Korea Australia Rheology Journal, 0, , .	1.7	1
60	Investigation of static and dynamic properties of cenosphere reinforced polymer matrix composite beams. AIP Conference Proceedings, 2019, , .	0.4	0
61	Rheological characterization of tragacanth gum coated carbonyl particles based magnetorheological fluid. AIP Conference Proceedings, 2020, , .	0.4	0
62	Experimental investigation and mathematical modeling of automotive passive damper for SUV suspension system. AIP Conference Proceedings, 2020, , .	0.4	0
63	Influence of Tool Probe Offset and Traverse Speed on Microstructure and Mechanical Properties of Friction Stir Weld Dissimilar Joints of AA2024-T351 and AA7075-T651. Lecture Notes on Multidisciplinary Industrial Engineering, 2020, , 555-567.	0.6	0