Hassan Elahi

List of Publications by Year
in descending order

68	1,570	394286 19	315616 38
papers	citations	h-index	g-index

70	70	70	1160
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Cancer Diagnosis Using Deep Learning: A Bibliographic Review. Cancers, 2019, 11, 1235.	1.7	268
2	A Review on Mechanisms for Piezoelectric-Based Energy Harvesters. Energies, 2018, 11, 1850.	1.6	177
3	Energy Harvesting towards Self-Powered IoT Devices. Energies, 2020, 13, 5528.	1.6	139
4	Ultrahigh energy density and thermal stability in sandwich-structured nanocomposites with dopamine@Ag@BaTiO3. Energy Storage Materials, 2020, 31, 492-504.	9.5	80
5	Numerical and experimental investigation of piezoelectric energy harvester based on flag-flutter. Aerospace Science and Technology, 2020, 97, 105634.	2.5	73
6	Generation of electrical energy using lead zirconate titanate (PZT-5A) piezoelectric material: Analytical, numerical and experimental verifications. Journal of Mechanical Science and Technology, 2016, 30, 3553-3558.	0.7	66
7	A Review on Applications of Piezoelectric Materials in Aerospace Industry. Integrated Ferroelectrics, 2020, 211, 25-44.	0.3	52
8	Response of piezoelectric materials on thermomechanical shocking and electrical shocking for aerospace applications. Microsystem Technologies, 2018, 24, 3791-3798.	1.2	51
9	Investigation of Deformation in Bimorph Piezoelectric Actuator: Analytical, Numerical and Experimental Approach. Integrated Ferroelectrics, 2019, 201, 94-109.	0.3	42
10	Design and performance evaluation of a piezoelectric aeroelastic energy harvester based on the limit cycle oscillation phenomenon. Acta Astronautica, 2019, 157, 233-240.	1.7	42
11	Performance Evaluation of a Piezoelectric Energy Harvester Based on Flag-Flutter. Micromachines, 2020, 11, 933.	1.4	41
12	Effects of variable resistance on smart structures of cubic reconnaissance satellites in various thermal and frequency shocking conditions. Journal of Mechanical Science and Technology, 2017, 31, 4151-4157.	0.7	36
13	Extended finite element method (XFEM) analysis of fiber reinforced composites for prediction of micro-crack propagation and delaminations in progressive damage: a review. Microsystem Technologies, 2019, 25, 747-763.	1.2	35
14	The investigation on structural health monitoring of aerospace structures via piezoelectric aeroelastic energy harvesting. Microsystem Technologies, 2021, 27, 2605-2613.	1.2	32
15	Piezoelectric thermo electromechanical energy harvester for reconnaissance satellite structure. Microsystem Technologies, 2019, 25, 665-672.	1.2	30
16	Experimental and Numerical Investigation of PZT Response in Composite Structures with Variable Degradation Levels. Journal of Materials Engineering and Performance, 2019, 28, 3239-3246.	1.2	28
17	Comparative Analysis of AlexNet, ResNet18 and SqueezeNet with Diverse Modification and Arduous Implementation. Arabian Journal for Science and Engineering, 2022, 47, 2397-2417.	1.7	28
18	Effect of Drilling Parameters on Hole Quality of Ti-6Al-4V Titanium Alloy in Dry Drilling. Materials Science Forum, 0, 880, 33-36.	0.3	26

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19	Deflection of coupled elasticityâ€“electrostatic bimorph PVDF material: theoretical, FEM and experimental verification. Microsystem Technologies, 2019, 25, 3235-3242.	1.2	26
20	Characterization and Implementation of a Piezoelectric Energy Harvester Configuration: Analytical, Numerical and Experimental Approach. Integrated Ferroelectrics, 2020, 212, 39-60.	0.3	23
21	Modeling and Design of a Piezoelectric Nonlinear Aeroelastic Energy Harvester. Integrated Ferroelectrics, 2020, 211, 132-151.	0.3	17
22	Sustainability Assessment and Analysis of Malaysian Food Manufacturing Sectorâ€”A Move Towards Sustainable Development. Advanced Science Letters, 2017, 23, 8942-8946.	0.2	17
23	A Novel Fast Error Convergence Approach for an Optimal Iterative Learning Controller. Integrated Ferroelectrics, 2021, 213, 103-115.	0.3	16
24	A Predictive Approach to Optimize a HHO Generator Coupled with Solar PV as a Standalone System. Sustainability, 2021, 13, 12110.	1.6	14
25	Multimodal piezoelectric wind energy harvester for aerospace applications. International Journal of Energy Research, 2022, 46, 13698-13710.	2.2	13
26	Electromechanical Degradation of Piezoelectric Patches. Advanced Structured Materials, 2018, , 35-44.	0.3	12
27	Investigation of tensile and in-plane shear properties of carbon fiber reinforced composites with and without piezoelectric patches for micro-crack propagation using extended finite element method. Microsystem Technologies, 2019, 25, 2361-2370.	1.2	12
28	Studying the Effect of Thermal Fatigue on Multiple Cracks Propagating in an SS316L Thin Flange on a Shaft Specimen Using a Multi-Physics Numerical Simulation Model. Strojniski Vestnik/Journal of Mechanical Engineering, 2019, , 565-573.	0.6	12
29	Reliability Risk Analysis for the Aeroelastic Piezoelectric Energy Harvesters. Integrated Ferroelectrics, 2020, 212, 156-169.	0.3	10
30	Real-Time Fault Diagnosis and Fault-Tolerant Control Strategy for Hall Sensors in Permanent Magnet Brushless DC Motor Drives. Electronics (Switzerland), 2021, 10, 1268.	1.8	10
31	Trajectory based motion synchronization in a dissimilar redundant actuation system for a large civil aircraft. , 2017, , .		10
32	Investigation of Electrical Properties for Cantilever-Based Piezoelectric Energy Harvester. Advances in Science and Technology Research Journal, 2019, 13, 76-85.	0.4	10
33	Control of an oil film thickness in a hydrostatic journal bearing under different dynamic conditions. , 2017, , .		9
34	Experimental and numerical investigation of transversal damage in carbon fiber reinforced composites using X-FEM analysis. Journal of Mechanical Science and Technology, 2019, 33, 205-211.	0.7	9
35	Numerical Assessment and Parametric Optimization of a Piezoelectric Wind Energy Harvester for IoT-Based Applications. Energies, 2021, 14, 2498.	1.6	9
36	Effect of Natural Aging and Fatigue Crack Propagation Rate on Welded and Non-Welded Aluminum Alloy (AA2219Ë—T87). Advances in Science and Technology Research Journal, 2019, 13, 129-143.	0.4	9

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37	A New Approach to Classification of Upper Limb and Wrist Movements Using EEG Signals. , 2017, , .		8
38	Prediction of Non-Uniform Distorted Flows, Effects on Transonic Compressor Using CFD, Regression Analysis and Artificial Neural Networks. Applied Sciences (Switzerland), 2021, 11, 3706.	1.3	8
39	Vibration of FG Porous Three-Layered Beams Equipped by Agglomerated Nanocomposite Patches Resting on Vlasov's Foundation. Transport in Porous Media, 2022, 142, 157-186.	1.2	7
40	Silicon Particles/Black Paint Coating for Performance Enhancement of Solar Absorbers. Energies, 2021, 14, 7140.	1.6	7
41	A New Type of Aerostatic Thrust Bearing Controlled by High-speed Pneumatic Valve and a Novel Pressure Transducer. International Journal of Automotive and Mechanical Engineering, 2019, 16, 7430-7446.	0.5	6
42	Effect of MoSi2-Si3N4/SiC Multi-Layer Coating on the Oxidation Resistance of Carbon/Carbon Composites above 1770 K. Journal of Composites Science, 2020, 4, 86.	1.4	5
43	Fretting fatigue crack initiation and propagation in Ti6Al4V sheets under tribocorrosive conditions of artificial seawater and physiological solutions. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2020, 234, 1526-1534.	0.7	5
44	Robust Vehicle Suspension System by Converting Active & Passive Control of a Vehicle to Semi-Active Control System Analytically. Journal of Automation and Control Engineering, 2016, , 300-304.	0.3	5
45	Influence of microstructural evolution and localized delta ferrite number on high-cycle fatigue crack opening and propagation rate. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2021, 235, 728-742.	0.7	4
46	Sustainability-Based Analysis of Conventional to High-Speed Machining of Al 6061-T6 Alloy. Applied Sciences (Switzerland), 2021, 11, 9032.	1.3	4
47	Design and performance analysis of hybrid solar powered geyser in Islamabad, Pakistan. Thermal Science, 2020, 24, 757-766.	0.5	4
48	CFD analysis on the effects of distorted inlet flows with variable RPM on the stability of the transonic micro-compressor. Microsystem Technologies, 2021, 27, 3811-3827.	1.2	3
49	Design of Two-Mode Spectroscopic Sensor for Biomedical Applications: Analysis and Measurement of Relative Intensity Noise through Control Mechanism. Applied Sciences (Switzerland), 2022, 12, 1856.	1.3	3
50	Experimental and Numerical Research of Paved Microcrack Using Histogram Equalization for Detection and Segmentation. Mathematical Problems in Engineering, 2022, 2022, 1-13.	0.6	3
51	Experimental Evaluation of Piezoelectric Energy Harvester Based on Flag-Flutter. Lecture Notes in Mechanical Engineering, 2020, , 807-816.	0.3	2
52	Detection and screening of COVID-19 through chest computed tomography radiographs using deep neural networks.. , 2021, , 63-73.		2
53	Study of the Surface and Dimensional Quality of the AlSi10Mg Thin-Wall Components Manufactured by Selective Laser Melting. Journal of Composites Science, 2021, 5, 126.	1.4	2
54	Experimental aeroelastic energy harvesting. , 2022, , 223-246.		2

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55	Crashworthiness study of UCAVâ€™s main landing gear using explicit dynamics. International Journal of Crashworthiness, 2022, 27, 1843-1859.	1.1	2
56	An area-optimized N-bit multiplication technique using N/2-bit multiplication algorithm. SN Applied Sciences, 2019, 1, 1.	1.5	1
57	Piezoelectric material. , 2022, , 3-19.		1
58	Piezoelectric energy harvesters. , 2022, , 61-78.		1
59	Modeling and Simulation of Dual Beams Hybrid Energy Harvester for Bridgeâ€™s Health Monitoring Systems. Integrated Ferroelectrics, 2021, 221, 138-151.	0.3	0
60	Energy harvesting. , 2022, , 41-59.		0
61	Vortex-induced vibrations based aeroelastic energy harvesting. , 2022, , 181-199.		0
62	Smart structures. , 2022, , 21-38.		0
63	Fluidâ€“structure interaction: some issues about the aeroelastic problem. , 2022, , 125-142.		0
64	Galloping-based aeroelastic energy harvesting. , 2022, , 201-221.		0
65	Flutter-based aeroelastic energy harvesting. , 2022, , 143-155.		0
66	Limit cycle oscillations. , 2022, , 157-179.		0
67	Modeling and simulation of a piezoelectric energy harvester. , 2022, , 99-121.		0
68	Energy harvesting and circuits. , 2022, , 79-97.		0