

Ian M Howard

List of Publications by Year in descending order

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52
papers

1,510
citations

361045

20
h-index

315357

38
g-index

54
all docs

54
docs citations

54
times ranked

1109
citing authors

#	ARTICLE	IF	CITATIONS
1	THE DYNAMIC MODELLING OF A SPUR GEAR IN MESH INCLUDING FRICTION AND A CRACK. Mechanical Systems and Signal Processing, 2001, 15, 831-853.	4.4	205
2	Advancements of wave energy converters based on power take off (PTO) systems: A review. Ocean Engineering, 2020, 204, 107248.	1.9	171
3	Comparison of localised spalling and crack damage from dynamic modelling of spur gear vibrations. Mechanical Systems and Signal Processing, 2006, 20, 332-349.	4.4	148
4	Reliability improvement of wind turbine power generation using model-based fault detection and fault tolerant control: A review. Renewable Energy, 2019, 135, 877-896.	4.3	124
5	Finite Element Analysis of High Contact Ratio Spur Gears in Mesh. Journal of Tribology, 2005, 127, 469-483.	1.0	89
6	Calculation of the Combined Torsional Mesh Stiffness of Spur Gears with Two- and Three-Dimensional Parametrical FE Models. Strojnicki Vestnik/Journal of Mechanical Engineering, 2011, 57, 810-818.	0.6	87
7	Torsional vibration signal analysis as a diagnostic tool for planetary gear fault detection. Mechanical Systems and Signal Processing, 2018, 100, 706-728.	4.4	65
8	Neural adaptive tracking control for an uncertain robot manipulator with time-varying joint space constraints. Mechanical Systems and Signal Processing, 2018, 112, 44-60.	4.4	47
9	Analytical and experimental comparisons of electromechanical vibration response of a piezoelectric bimorph beam for power harvesting. Mechanical Systems and Signal Processing, 2013, 36, 66-86.	4.4	45
10	A vibration cavitation sensitivity parameter based on spectral and statistical methods. Expert Systems With Applications, 2015, 42, 67-78.	4.4	37
11	Backstepping Nussbaum gain dynamic surface control for a class of input and state constrained systems with actuator faults. Information Sciences, 2019, 482, 27-46.	4.0	36
12	Parametric design-based modal damped vibrational piezoelectric energy harvesters with arbitrary proof mass offset: Numerical and analytical validations. Mechanical Systems and Signal Processing, 2016, 68-69, 562-586.	4.4	34
13	Analytical techniques for broadband multielectromechanical piezoelectric bimorph beams with multifrequency power harvesting. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 2555-2568.	1.7	31
14	The spur planetary gear torsional stiffness and its crack sensitivity under quasi-static conditions. Engineering Failure Analysis, 2016, 63, 106-120.	1.8	31
15	Neural network adaptive control design for robot manipulators under velocity constraints. Journal of the Franklin Institute, 2018, 355, 693-713.	1.9	28
16	Dynamic modelling of flexibly supported gears using iterative convergence of tooth mesh stiffness. Mechanical Systems and Signal Processing, 2016, 80, 460-481.	4.4	26
17	Neural impedance adaption for assistive human-robot interaction. Neurocomputing, 2018, 290, 50-59.	3.5	24
18	The diagnostic analysis of the planet bearing faults using the torsional vibration signal. Mechanical Systems and Signal Processing, 2019, 134, 106304.	4.4	24

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19	Error Analysis on Finite Element Modeling of Involute Spur Gears. Journal of Mechanical Design, Transactions of the ASME, 2006, 128, 90-97.	1.7	22
20	Power maximization of variable-speed variable-pitch wind turbines using passive adaptive neural fault tolerant control. Frontiers of Mechanical Engineering, 2017, 12, 377-388.	2.5	22
21	Is wave energy untapped potential?. International Journal of Mechanical Sciences, 2021, 205, 106544.	3.6	22
22	Bayesian Sensor Fault Detection in a Markov Jump System. Asian Journal of Control, 2017, 19, 1465-1481.	1.9	18
23	Effect of shunted piezoelectric control for tuning piezoelectric power harvesting system responses—analytical techniques. Smart Materials and Structures, 2015, 24, 105029.	1.8	17
24	Electromechanical Piezoelectric Power Harvester Frequency Response Modeling Using Closed-Form Boundary Value Methods. IEEE/ASME Transactions on Mechatronics, 2014, 19, 32-44.	3.7	15
25	Analytical modeling of self-powered electromechanical piezoelectric bimorph beams with multidirectional excitation. International Journal of Smart and Nano Materials, 2011, 2, 134-175.	2.0	14
26	Life Cycle Sustainability Assessment of Alternative Energy Sources for the Western Australian Transport Sector. Sustainability, 2020, 12, 5565.	1.6	14
27	Optimum efficiency control of a wind turbine with unknown desired trajectory and actuator faults. Journal of Renewable and Sustainable Energy, 2017, 9, 063305.	0.8	12
28	Environmental Life Cycle Assessment of Alternative Fuels for Western Australia's Transport Sector. Atmosphere, 2019, 10, 398.	1.0	12
29	Dynamic modelling of the gear system under non-stationary conditions using the iterative convergence of the tooth mesh stiffness. Engineering Failure Analysis, 2022, 131, 105908.	1.8	11
30	Fault-Tolerant Neuro Adaptive Constrained Control of Wind Turbines for Power Regulation with Uncertain Wind Speed Variation. Energies, 2019, 12, 4712.	1.6	9
31	Bayesian Fault Probability Estimation: Application in Wind Turbine Drivetrain Sensor Fault Detection. Asian Journal of Control, 2020, 22, 624-647.	1.9	8
32	Vibration response from the planetary gear with flexible ring gear. International Journal of Powertrains, 2019, 8, 3.	0.1	7
33	A Receptance Technique for the Modelling of the Vibration Characteristics of any Beam-Type Structure. CIRP Annals - Manufacturing Technology, 1988, 37, 355-360.	1.7	6
34	The diagnostic analysis of the fault coupling effects in planet bearing. Engineering Failure Analysis, 2020, 108, 104266.	1.8	6
35	A Novel Type of Noncontact Linear Piezoelectric Actuator Modulated by Electromagnetic Field: Design and Experiment. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 69, 299-308.	1.7	5
36	An Experimental Investigation of the Static Transmission Error and Torsional Mesh Stiffness of Nylon Gears. , 2007, , 207.		4

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37	Constrained control of wind turbines for power regulation in full load operation. , 2017, , .		4
38	A neuro-adaptive maximum power tracking control of variable speed wind turbines with actuator faults. , 2017, , .		4
39	Pipeline Slug Flow Dynamic Load Characterization. Journal of Offshore Mechanics and Arctic Engineering, 2019, 141, .	0.6	3
40	Electromagnetic Energy Harvesting by Spatially Varying the Magnetic Field. Advances in Intelligent and Soft Computing, 2012, , 403-409.	0.2	3
41	Study of Gravitational Force Effects, Magnetic Restoring Forces, and Coefficients of the Magnetic Spring-Based Nonlinear Oscillator System. IEEE Transactions on Magnetics, 2022, 58, 1-18.	1.2	3
42	A Further Study on High Contact Ratio Spur Gears in Mesh With Double Scope Tooth Profile Modification. , 2007, , 255.		2
43	An Analytical Method for Vibration Modelling of a Piezoelectric Bimorph Beam for Power Harvesting. , 2009, , .		1
44	Comparative numerical studies of electromechanical finite element vibration power harvester approaches of a piezoelectric unimorph. , 2014, , .		1
45	Ring-Planet Mesh Stiffness Study With Different Boundary Conditions and Crack Locations. , 2015, , .		1
46	Sensor fault detection and isolation: a game theoretic approach. International Journal of Systems Science, 2018, , 1-21.	3.7	1
47	Optimal robotâ€environment interaction using inverse differential Riccati equation. Asian Journal of Control, 2020, 22, 1401-1410.	1.9	1
48	The Dynamic Modelling of Multiple Pairs of Spur Gears in Mesh Including Friction. , 2001, , 841-848.		1
49	GDN-1 A COMMON FORMULA FOR SPUR GEAR MESH STIFFNESS(GEAR DYNAMICS AND NOISE). The Proceedings of the JSME International Conference on Motion and Power Transmissions, 2001, I.01.202, 1-4.	0.0	1
50	Intrinsic geometries and properties of piezo-MEMS power harvesters with tip mass offset using new electromechanical finite element vibration analysis. , 2014, , .		0
51	Theoretical and experimental investigations of a non-linear single degree of freedom electromagnetic vibration energy harvester. , 2016, , .		0
52	Design and simulation of core-ring magnet configurations for maximising energy transduction in linear actuators and micro-energy generators. , 2016, , .		0