

Homer Rahnejat

List of Publications by Year in descending order

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Version: 2024-02-01

32
papers

635
citations

623188

14
h-index

610482

24
g-index

32
all docs

32
docs citations

32
times ranked

404
citing authors

#	ARTICLE	IF	CITATIONS
1	In-cycle and life-time friction transience in piston ring"liner conjunction under mixed regime of lubrication. International Journal of Engine Research, 2014, 15, 862-876.	1.4	85
2	Transient elastohydrodynamic lubrication of rough new or worn piston compression ring conjunction with an out-of-round cylinder bore. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2012, 226, 284-305.	1.0	79
3	Reducing in-cylinder parasitic losses through surface modification and coating. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2014, 228, 391-402.	1.1	51
4	Broadband energy harvesting from parametric vibrations of a class of nonlinear Mathieu systems. Applied Physics Letters, 2017, 110, .	1.5	44
5	On the dynamics of a nonlinear energy harvester with multiple resonant zones. Nonlinear Dynamics, 2018, 92, 1271-1286.	2.7	39
6	Elastohydrodynamic lubrication of hypoid gear pairs at high loads. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2012, 226, 183-198.	1.0	32
7	Optimisation of the vehicle transmission and the gear-shifting strategy for the minimum fuel consumption and the minimum nitrogen oxide emissions. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2017, 231, 883-899.	1.1	31
8	Effect of mesh phasing on the transmission efficiency and dynamic performance of wheel hub planetary gear sets. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2018, 232, 3469-3481.	1.1	26
9	Thermal conductivity and molecular heat transport of nanofluids. RSC Advances, 2019, 9, 2516-2524.	1.7	25
10	Heat generation and transfer in automotive dry clutch engagement. Journal of Zhejiang University: Science A, 2018, 19, 175-188.	1.3	24
11	Effect of teeth micro-geometrical form modification on contact kinematics and efficiency of high performance transmissions. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2017, 231, 538-555.	0.5	23
12	Transient mixed non-Newtonian thermo-elastohydrodynamics of vehicle differential hypoid gears with starved partial counter-flow inlet boundary. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2014, 228, 1159-1173.	1.0	22
13	Lubrication analysis and sub-surface stress field of an automotive differential hypoid gear pair under dynamic loading. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2016, 230, 1183-1197.	1.1	19
14	Optimisation of the piston compression ring for improved energy efficiency of high performance race engines. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2017, 231, 1806-1817.	1.1	16
15	Effect of Shaft Surface Roughness on the Performance of Radial Lip Seals. Lubricants, 2018, 6, 99.	1.2	14
16	Lubricated Loaded Tooth Contact Analysis and Non-Newtonian Thermoelastohydrodynamics of High-Performance Spur Gear Transmission Systems. Lubricants, 2020, 8, 20.	1.2	13
17	Integrated Thermal and Dynamic Analysis of Dry Automotive Clutch Linings. Applied Sciences (Switzerland), 2019, 9, 4287.	1.3	11
18	Performance of Poly Alpha Olefin Nanolubricant. Lubricants, 2020, 8, 17.	1.2	11

#	ARTICLE	IF	CITATIONS
19	Transient thermal analysis of mixed-elastohydrodynamic contact of high performance transmission in a dry sump environment. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2019, 233, 326-338.	1.0	9
20	Analytical Elastostatic Contact Mechanics of Highly-Loaded Contacts of Varying Conformity. Lubricants, 2020, 8, 89.	1.2	9
21	Non-Newtonian Thermo-Elastohydrodynamics and Sub-Surface Stress Field of High-Performance Racing Spur Gears. Lubricants, 2022, 10, 146.	1.2	9
22	Combined Analytical and Experimental Evaluation of Frictional Performance of Lubricated Untextured and Partially Textured Sliders. Lubricants, 2018, 6, 88.	1.2	8
23	Atomic force microscopic measurement of a used cylinder liner for prediction of boundary friction. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2019, 233, 1879-1889.	1.1	7
24	Transient Analysis of Isothermal Elastohydrodynamic Point Contacts under Complex Kinematics of Combined Rolling, Spinning and Normal Approach. Lubricants, 2020, 8, 81.	1.2	7
25	Efficiency of disengaged wet brake packs. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2019, 233, 1562-1569.	1.1	6
26	Tribology and Dowson. Lubricants, 2020, 8, 63.	1.2	4
27	Fundamentals and Advances in Elastohydrodynamics: The Role of Ramsey Gohar. Lubricants, 2021, 9, 120.	1.2	3
28	Viscoelastic Finite Line Contact of Thin Bonded Layered Solids of Low Elastic Modulus. Applied Sciences (Switzerland), 2020, 10, 3363.	1.3	2
29	Transient Nanoscale Tribofilm Growth: Analytical Prediction and Measurement. Applied Sciences (Switzerland), 2021, 11, 5890.	1.3	2
30	Transient non-Newtonian elastohydrodynamics of rough meshing hypoid gear teeth subjected to complex contact kinematics. Tribology International, 2022, 167, 107398.	3.0	2
31	Asperity level frictional interactions of cylinder bore materials and lubricant composition. Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, 2021, 235, 679-686.	1.0	1
32	A Critical Review of Approaches to the Design of Floating-Liner Apparatus for Instantaneous Piston Assembly Friction Measurement. Lubricants, 2021, 9, 10.	1.2	1