

# Mohammad Rahman

## List of Publications by Year in descending order

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Version: 2024-02-01

104  
papers

996  
citations

471061

17  
h-index

552369

26  
g-index

104  
all docs

104  
docs citations

104  
times ranked

659  
citing authors

#	ARTICLE	IF	CITATIONS
1	An overview of cooling of thermoelectric devices. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 78, 15-22.	8.2	98
2	LNG pool fire simulation for domino effect analysis. <i>Reliability Engineering and System Safety</i> , 2015, 143, 19-29.	5.1	70
3	Effects of liquid viscosity and surface tension on atomization in two-phase, gas/liquid fluid coker nozzles. <i>Fuel</i> , 2010, 89, 1872-1882.	3.4	54
4	Chronic leak detection for single and multiphase flow: A critical review on onshore and offshore subsea and arctic conditions. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 81, 103460.	2.1	37
5	A novel method for estimating the entropy generation rate in a human body. <i>Thermal Science</i> , 2007, 11, 75-92.	0.5	31
6	Early gas kick detection in vertical wells via transient multiphase flow modelling: A review. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 80, 103391.	2.1	28
7	Measuring solid cuttings transport in Newtonian fluid across horizontal annulus using electrical resistance tomography (ERT). <i>Flow Measurement and Instrumentation</i> , 2021, 77, 101841.	1.0	27
8	Quantifying the skin factor for estimating the completion efficiency of perforation tunnels in petroleum wells. <i>Journal of Petroleum Science and Engineering</i> , 2007, 58, 99-110.	2.1	26
9	Nonlinear model predictive control of a Hammerstein Wiener model based experimental managed pressure drilling setup. <i>ISA Transactions</i> , 2019, 88, 225-232.	3.1	25
10	Thermo-economic and environmental assessment of hybrid vapor compression-absorption refrigeration systems for district cooling. <i>Energy</i> , 2022, 243, 122991.	4.5	24
11	Investigation of a novel perforation technique in petroleum wellsâ€”perforation by drilling. <i>Journal of the Franklin Institute</i> , 2007, 344, 777-789.	1.9	23
12	Effects of the gas phase molecular weight and bubble size on effervescent atomization. <i>International Journal of Multiphase Flow</i> , 2012, 38, 35-52.	1.6	22
13	Progress on carbon dioxide capture, storage and utilisation. <i>International Journal of Global Warming</i> , 2020, 20, 124.	0.2	21
14	Dimensionless data-driven model for optimizing hole cleaning efficiency in daily drilling operations. <i>Journal of Natural Gas Science and Engineering</i> , 2021, 96, 104315.	2.1	21
15	Probabilistic estimation of hydrate formation. <i>Journal of Petroleum Science and Engineering</i> , 2015, 135, 32-38.	2.1	19
16	An improved method for applying the lockhartâ€”martinelli correlation to threeâ€”phase gasâ€”liquidâ€”solid horizontal pipeline flows. <i>Canadian Journal of Chemical Engineering</i> , 2013, 91, 1372-1382.	0.9	18
17	Numerical investigation of two-phase fluid flow in a perforation tunnel. <i>Journal of Natural Gas Science and Engineering</i> , 2018, 55, 606-611.	2.1	18
18	Terminal settling velocity of a single sphere in drilling fluid. <i>Particulate Science and Technology</i> , 2019, 37, 943-952.	1.1	18

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19	Understanding Gas Kick Behavior in Water and Oil-Based Drilling Fluids. , 2019, , .		18
20	Validation of CFD model of multiphase flow through pipeline and annular geometries. Particulate Science and Technology, 2019, 37, 685-697.	1.1	18
21	Estimation of Local Equilibrium Model Parameters for Simulation of the Laboratory Foam-Enhanced Oil Recovery Process Using a Commercial Reservoir Simulator. ACS Omega, 2020, 5, 23437-23449.	1.6	16
22	Kick detection and remedial action in managed pressure drilling: a review. SN Applied Sciences, 2020, 2, 1.	1.5	16
23	Experimental investigation of multiphase flow behavior in drilling annuli using high speed visualization technique. Frontiers in Energy, 2020, 14, 635-643.	1.2	15
24	CFD Analysis of Pressure Losses and Deposition Velocities in Horizontal Annuli. International Journal of Chemical Engineering, 2019, 2019, 1-17.	1.4	13
25	Investigation of cuttings transport in a horizontal well with high-speed visualization and electrical resistance tomography technique. Journal of Natural Gas Science and Engineering, 2021, 92, 103968.	2.1	13
26	Experimental and numerical study of cuttings transport in inclined drilling operations. Journal of Petroleum Science and Engineering, 2022, 208, 109394.	2.1	12
27	An experimental investigation of the foam enhanced oil recovery process for a dual porosity and heterogeneous carbonate reservoir under strongly oil-wet condition. Fuel, 2022, 313, 122684.	3.4	12
28	RANS Based Computational Fluid Dynamics Simulation of Fully Developed Turbulent Newtonian Flow in Concentric Annuli. Journal of Fluids Engineering, Transactions of the ASME, 2016, 138, .	0.8	11
29	Flow Regime, Slug Frequency and Wavelet Analysis of Air/Newtonian and Air/non-Newtonian Two-Phase Flow. Applied Sciences (Switzerland), 2020, 10, 3272.	1.3	11
30	Investigation of binary, ternary and quaternary mixtures across solution heat exchanger used in absorption refrigeration and process modifications to improve cycle performance. Energy, 2020, 198, 117254.	4.5	11
31	Kinetic Behavior of Quaternary Ammonium Hydroxides in Mixed Methane and Carbon Dioxide Hydrates. Molecules, 2021, 26, 275.	1.7	11
32	Application of the electric resistance tomographic technique to investigate its efficacy in cuttings transport in horizontal drilling scenarios. Journal of Natural Gas Science and Engineering, 2021, 95, 104119.	2.1	10
33	CFD Analysis of Hydrate Formation in Pipelines. Petroleum Science and Technology, 2015, 33, 571-578.	0.7	9
34	Assessing the Alkyl Chain Effect of Ammonium Hydroxides Ionic Liquids on the Kinetics of Pure Methane and Carbon Dioxide Hydrates. Energies, 2020, 13, 3272.	1.6	9
35	Experimental Study of Cuttings Transport with Non-Newtonian Fluid in an Inclined Well Using Visualization and Electrical Resistance Tomography Techniques. SPE Drilling and Completion, 2021, 36, 745-762.	0.9	9
36	Investigation of cutting transport in horizontal/deviated annulus using visualization and pressure drop techniques for two-phase slurry flow. Journal of Natural Gas Science and Engineering, 2022, 100, 104460.	2.1	9

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37	Computational Fluid Dynamics Modeling of Subsea Pipeline Leaks in Arctic Conditions. , 2016, , .		8
38	Numerical simulation of two-phase flow in porous media using a wavelet based phase-field method. Chemical Engineering Science, 2017, 173, 230-241.	1.9	8
39	Experimental Investigation of Multi-Phase Flow in an Annulus Using Electric Resistance Tomography. , 2019, , .		8
40	The Control of Apparent Wettability on the Efficiency of Surfactant Flooding in Tight Carbonate Rocks. Processes, 2019, 7, 684.	1.3	8
41	Hydrate-Induced Vibration in an Offshore Pipeline. SPE Journal, 2020, 25, 732-743.	1.7	8
42	Modeling surge pressures during tripping operations in eccentric annuli. Journal of Natural Gas Science and Engineering, 2021, 96, 104233.	2.1	8
43	Numerical Study on the Impact of Spiral Tortuous Hole on Cuttings Removal in Horizontal Wells. SPE Drilling and Completion, 2022, 37, 77-92.	0.9	8
44	Review on Modeling of Vapor Compression Chillers: District Cooling Perspective. International Journal of Air-Conditioning and Refrigeration, 2020, 28, 2030003.	0.8	7
45	A Mechanistic Gas Kick Model to Simulate Gas in A Riser with Water and Synthetic-Based Drilling Fluid. , 2020, , .		7
46	Estimating of Non-Darcy Flow Coefficient in Artificial Porous Media. Energies, 2022, 15, 1197.	1.6	7
47	Experimental Investigation of Volume Fraction in an Annulus Using Electrical Resistance Tomography. SPE Journal, 2019, 24, 1947-1956.	1.7	6
48	Migration of CO2 through Carbonate Cores: Effect of Salinity, Pressure, and Cyclic Brine-CO2 Injection. Journal of Environmental Engineering, ASCE, 2020, 146, .	0.7	6
49	Comparison of Crushed-Zone Skin Factor for Cased and Perforated Wells Calculated with and without including a Tip-Crushed Zone Effect. Geofluids, 2021, 2021, 1-13.	0.3	6
50	A new correlation for performance prediction of small and large capacity single-effect vapor absorption refrigeration systems. , 2022, 1, 100002.		6
51	3D numerical and experimental modelling of multiphase flow through an annular geometry applied for cuttings transport. International Journal of Multiphase Flow, 2022, 151, 104044.	1.6	6
52	Correlations of the Droplet Size-Velocity of the Two-Phase, Air/Liquid Spray Using a Particle-Dynamic-Analyzer. , 2008, , .		5
53	Experimental and computational analysis of pressure response in a multiphase flow loop. AIP Conference Proceedings, 2016, , .	0.3	5
54	Quantifying the partial penetration skin factor for evaluating the completion efficiency of vertical oil wells. Journal of Petroleum Exploration and Production, 2021, 11, 3031-3043.	1.2	5

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55	Effect of drill pipe orbital motion on non-Newtonian fluid flow in an eccentric wellbore: a study with computational fluid dynamics. <i>Journal of Petroleum Exploration and Production</i> , 2022, 12, 1383-1402.	1.2	5
56	A New Method of Porous Space Reconstruction Using Multipoint Histogram Technology. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2018, 140, .	1.4	4
57	A computational fluid dynamics investigation of the flow behavior near a wellbore using three-dimensional Navier–Stokes equations. <i>Advances in Mechanical Engineering</i> , 2019, 11, 168781401987325.	0.8	4
58	Effects of salinity on solid particle settling velocity in non-Newtonian Herschel–Bulkley fluids. <i>Journal of Petroleum Exploration and Production</i> , 2021, 11, 3333-3347.	1.2	4
59	Comprehensive assessment and evaluation of correlations for gas-oil ratio, oil formation volume factor, gas viscosity, and gas density utilized in gas kick detection. <i>Journal of Petroleum Science and Engineering</i> , 2021, 207, 109135.	2.1	4
60	Bubble dynamics in microchannel: An overview of the state-of-the-art. <i>Meccanica</i> , 2021, 56, 481-513.	1.2	4
61	Scale-Up of Perforation Process from Laboratory Model to Bottom Hole Dimensions. <i>Journal of Porous Media</i> , 2008, 11, 19-34.	1.0	4
62	EXPERIMENTAL INVESTIGATION OF GEOMETRIC SCALING ON ATOMIZATION IN A TWO-PHASE GAS/LIQUID SPRAY. <i>Multiphase Science and Technology</i> , 2010, 22, 133-155.	0.2	4
63	Horizontal Two-Phase Flow Regime Identification with Machine Learning Classification Models. , 2022, , .		4
64	Development of pressure gradient correlation for slurry flow using dimensional analysis. <i>Journal of Natural Gas Science and Engineering</i> , 2022, 104, 104660.	2.1	4
65	CFD simulation of slurry flow in annular pipelines. , 2017, , .		3
66	CFD and Experimental Studies of Yield Power-Law Fluids in Turbulent Pipe Flow. , 2018, , .		3
67	Phase behaviour of hydrate formations in oil and gas production in subsea conditions. , 2014, , .		2
68	Dynamics of Surfactant Flooding in Tight Carbonate Rocks. , 2019, , .		2
69	Systematic assessment of the dynamic behavior of ecofriendly refrigerants used in dual vapor compression chiller. <i>Science and Technology for the Built Environment</i> , 2021, 27, 917-935.	0.8	2
70	A New Evaluation of Skin Factor in Inclined Wells with Anisotropic Permeability. <i>Energies</i> , 2021, 14, 5585.	1.6	2
71	An Experimental Development to Characterise the Flow Phenomena at the Near-Wellbore Region. , 2019, , .		2
72	A new assessment of perforation skin factor for vertical perforated wells in near-wellbore region. <i>Journal of Petroleum Exploration and Production</i> , 0, , 1.	1.2	2

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73	Reynolds-Averaged Simulation of the Fully Developed Turbulent Drag Reduction Flow in Concentric Annuli. Journal of Fluids Engineering, Transactions of the ASME, 2020, 142, .	0.8	2
74	Predicting the Two-Phase Flow Patterns Implementing the Froude Number Correlation. , 2008, , .		1
75	Near Wall Turbulence Characteristics of a Drag Reducing Polymer Fluid Flow in Concentric Annulus Using CFD. , 2013, , .		1
76	Numerical Investigation of Two-phase Nozzle Flow. Procedia Engineering, 2014, 90, 346-350.	1.2	1
77	BOG ventilation and combustion in re-liquefaction plants of LNG carriers. , 2014, , .		1
78	CFD Simulation of Three Phase Gas-Liquid-Solid Flow in Horizontal Pipes. , 2017, , .		1
79	Investigation of Pressure Losses in Eccentric Inclined Annuli. , 2017, , .		1
80	Study of Ostwald-de Waele fluid flow in an elliptical annulus using the slot model and the CFD approach. Journal of Dispersion Science and Technology, 2021, 42, 1395-1407.	1.3	1
81	A study on friction loss and holdup ratio in the water lubricated pipeline transportation of heavy oil. Science and Technologies: Oil and Oil Products Pipeline Transportation, 2019, 9, 200-206.	0.2	1
82	The effect of orbital motion and eccentricity of drill pipe on pressure gradient in eccentric annulus flow with Newtonian and non-Newtonian fluids. Progress in Computational Fluid Dynamics, 2020, 20, 238.	0.1	1
83	Clinical Trials on Alternative Medicines for COVID-19. Studies in Health Technology and Informatics, 2022, , .	0.2	1
84	Estimation of Average Void Fraction for Gas-Liquid, Two-Phase Flow in an Industrial Nozzle Assembly Using a Quick-Closing-Valve. , 2008, , .		0
85	A CFD Simulation of Near Wall Turbulent Flow in Concentric Annulus. , 2013, , .		0
86	Characterization of Time-Averaged Turbulence Statistics for Shear Thinning Fluid in Horizontal Concentric Annulus Using RANS Based CFD Simulation. , 2016, , .		0
87	CFD Numerical Simulation for Downhole Thruster Performance Evaluation. , 2018, , .		0
88	Two-Phase Flow Visualization for a Hybrid Heat Sink. , 2018, , .		0
89	Multiphase Flow in a Subsea Hilly Terrain. , 2018, , .		0
90	A comprehensive study on multiphase flow through annular pipe using CFD approach. AIP Conference Proceedings, 2018, , .	0.3	0

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91	Force measurement of a gas-assisted atomization using an impulse probe. International Journal of Multiphase Flow, 2019, 112, 258-268.	1.6	0
92	The effect of orbital motion and eccentricity of drill pipe on pressure gradient in eccentric annulus flow with Newtonian and non-Newtonian fluids. Progress in Computational Fluid Dynamics, 2020, 20, 238.	0.1	0
93	EXPERIMENTAL INVESTIGATION OF AIR-WATER TWO-PHASE FLOW REGIMES IN A HORIZONTAL WAVY MICRO-CHANNEL. WIT Transactions on Engineering Sciences, 2017, , .	0.0	0
94	Carbon Dioxide and Water Mixture in Pipeline Flow Systems. , 2018, , .		0
95	PRESSURE LOSS OF WATER-CO <sub>2</sub> TWO-PHASE FLOW UNDER DIFFERENT OPERATING CONDITIONS. WIT Transactions on Engineering Sciences, 2018, , .	0.0	0
96	THE EFFECT OF MULTIPHASE FLOW BEHAVIOUR ON A HORIZONTAL ANNULUS BY INTEGRATING HIGH-SPEED IMAGING TECHNIQUE. , 2019, , .		0
97	CFD SIMULATION OF TWO PHASE ANNULAR FLOW IN NATURAL GAS PIPELINES. , 2019, , .		0
98	DRILLING CUTTINGS TRANSPORT IN HORIZONTAL WELLS WHILE AERATED DRILLING. , 2019, , .		0
99	Development of a Hybrid Heat Sink for Thermal Management of Photovoltaic Cells. , 2019, , .		0
100	Experimental and Numerical Investigation of Gas-Yield Power-Law Fluids in a Horizontal Pipe. , 2019, , .		0
101	Numerical Study on Gas-Yield Power-Law Fluid in T-Junction Minichannel. , 2019, , .		0
102	CFD Simulation of Two-Phase Vertical Annular Flow in Both Upward and Downward Direction in a Small Pipe. , 2019, , .		0
103	Examination and Analysis of Four-Phase Four-Fluid Flow Techniques in Offshore Pipelines. , 2019, , .		0
104	Review on Bubble Dynamics in Microchannel Heat Sink. , 2019, , .		0