Salaheldin Mahmoud Elkatatny

List of Publications by Citations

253 papers	2,715 citations	25 h-index	37 g-index
275 ext. papers	3,821 ext. citations	3 avg, IF	6.66 L-index

#	Paper	IF	Citations
253	Real time prediction of drilling fluid rheological properties using Artificial Neural Networks visible mathematical model (white box). *Journal of Petroleum Science and Engineering*, **2016**, 146, 1202-1210	4.4	95
252	Determination of the total organic carbon (TOC) based on conventional well logs using artificial neural network. *International Journal of Coal Geology*, **2017**, 179, 72-80	5.5	90
251	Real-Time Prediction of Rheological Parameters of KCl Water-Based Drilling Fluid Using Artificial Neural Networks. *Arabian Journal for Science and Engineering*, **2017**, 42, 1655-1665	2.5	63
250	Single stage filter cake removal of barite weighted water based drilling fluid. *Journal of Petroleum Science and Engineering*, **2017**, 149, 476-484	4.4	57
249	New insights into the prediction of heterogeneous carbonate reservoir permeability from well logs using artificial intelligence network. *Neural Computing and Applications*, **2018**, 30, 2673-2683	4.8	49
248	Development of New Permeability Formulation From Well Log Data Using Artificial Intelligence Approaches. *Journal of Energy Resources Technology, Transactions of the ASME*, **2018**, 140,	2.6	46
247	Characterization of Filter Cake Generated by Water-Based Drilling Fluids Using CT Scan. *SPE Drilling and Completion*, **2012**, 27, 282-293	1.4	46
246	Filter Cake Properties of Water-Based Drilling Fluids Under Static and Dynamic Conditions Using Computed Tomography Scan. *Journal of Energy Resources Technology, Transactions of the ASME*, **2013**, 135,	2.6	39
245	Development of New Mathematical Model for Compressional and Shear Sonic Times from Wireline Log Data Using Artificial Intelligence Neural Networks (White Box). *Arabian Journal for Science and Engineering*, **2018**, 43, 6375-6389	2.5	37
244	A Robust Rate of Penetration Model for Carbonate Formation. *Journal of Energy Resources Technology, Transactions of the ASME*, **2019**, 141,	2.6	36
243	Real-Time Determination of Rheological Properties of Spud Drilling Fluids Using a Hybrid Artificial Intelligence Technique. *Journal of Energy Resources Technology, Transactions of the ASME*, **2019**, 141,	2.6	35
242	Application of Artificial Intelligence Techniques to Estimate the Static Poisson's Ratio Based on Wireline Log Data. *Journal of Energy Resources Technology, Transactions of the ASME*, **2018**, 140,	2.6	34
241	New Approach to Optimize the Rate of Penetration Using Artificial Neural Network. *Arabian Journal for Science and Engineering*, **2018**, 43, 6297-6304	2.5	32
240	Estimation of Static Young's Modulus for Sandstone Formation Using Artificial Neural Networks. *Energies*, **2019**, 12, 2125	3.1	32
239	New insights into porosity determination using artificial intelligence techniques for carbonate reservoirs. *Petroleum*, **2018**, 4, 408-418	4.1	31
238	Adaptive and Real-Time Optimal Control of Stick-Slip and Bit Wear in Autonomous Rotary Steerable Drilling. *Journal of Energy Resources Technology, Transactions of the ASME*, **2018**, 140,	2.6	31
237	Effect of pH on Rheological and Filtration Properties of Water-Based Drilling Fluid Based on Bentonite. *Sustainability*, **2019**, 11, 6714	3.6	31

236	An integrated approach for estimating static Young modulus using artificial intelligence tools. *Neural Computing and Applications*, **2019**, 31, 4123-4135	4.8	31
235	A New Technique to Develop Rock Strength Correlation Using Artificial Intelligence Tools **2017**,		29
234	Clay minerals damage quantification in sandstone rocks using core flooding and NMR. *Journal of Petroleum Exploration and Production*, **2019**, 9, 593-603	2.2	29
233	Effect of CO2 adsorption on enhanced natural gas recovery and sequestration in carbonate reservoirs. *Journal of Natural Gas Science and Engineering*, **2018**, 55, 575-584	4.6	28
232	Development of a new correlation to determine the static Young modulus. *Journal of Petroleum Exploration and Production*, **2018**, 8, 17-30	2.2	27
231	A Combined Barite-Ilmenite Weighting Material to Prevent Barite Sag in Water-Based Drilling Fluid. *Materials*, **2019**, 12,	3.5	27
230	Estimation of Oil Recovery Factor for Water Drive Sandy Reservoirs through Applications of Artificial Intelligence. *Energies*, **2019**, 12, 3671	3.1	25
229	A New Approach to Predict Failure Parameters of Carbonate Rocks using Artificial Intelligence Tools **2017**,		25
228	Novel Technique to Eliminate Gas Condensation in Gas Condensate Reservoirs Using Thermochemical Fluids. *Energy & Fuels*, **2018**, 32, 12843-12850	4.1	25
227	New Artificial Neural Networks Model for Predicting Rate of Penetration in Deep Shale Formation. *Sustainability*, **2019**, 11, 6527	3.6	23
226	Mitigation of barite sagging during the drilling of high-pressure high-temperature wells using an invert emulsion drilling fluid. *Powder Technology*, **2019**, 352, 325-330	5.2	22
225	Gas condensate treatment: A critical review of materials, methods, field applications, and new solutions. *Journal of Petroleum Science and Engineering*, **2019**, 177, 602-613	4.4	22
224	Development of new correlations for the oil formation volume factor in oil reservoirs using artificial intelligent white box technique. *Petroleum*, **2018**, 4, 178-186	4.1	22
223	Evaluation of the Total Organic Carbon (TOC) Using Different Artificial Intelligence Techniques. *Sustainability*, **2019**, 11, 5643	3.6	22
222	Real-Time Prediction of Rheological Properties of Invert Emulsion Mud Using Adaptive Neuro-Fuzzy Inference System. *Sensors*, **2020**, 20,	3.8	21
221	Prediction of the Rate of Penetration while Drilling Horizontal Carbonate Reservoirs Using the Self-Adaptive Artificial Neural Networks Technique. *Sustainability*, **2020**, 12, 1376	3.6	21
220	Enhancing the Stability of Invert Emulsion Drilling Fluid for Drilling in High-Pressure High-Temperature Conditions. *Energies*, **2018**, 11, 2393	3.1	21
219	Mitigating CO2 reaction with hydrated oil well cement under geologic carbon sequestration using nanoclay particles. *Journal of Natural Gas Science and Engineering*, **2019**, 68, 102902	4.6	20

218	Prevention of Barite Sag in Oil-Based Drilling Fluids Using a Mixture of Barite and Ilmenite as Weighting Material. *Sustainability*, **2019**, 11, 5617	3.6	20
217	Mixing chelating agents with seawater for acid stimulation treatments in carbonate reservoirs. *Journal of Petroleum Science and Engineering*, **2017**, 152, 9-20	4.4	19
216	New Technique to Determine the Total Organic Carbon Based on Well Logs Using Artificial Neural Network (White Box) **2017**,		19
215	Influence of Nanoclay Content on Cement Matrix for Oil Wells Subjected to Cyclic Steam Injection. *Materials*, **2019**, 12,	3.5	19
214	Estimation of the Total Organic Carbon Using Functional Neural Networks and Support Vector Machine **2020**,		19
213	Development of a New Correlation for Bubble Point Pressure in Oil Reservoirs Using Artificial Intelligent Technique. *Arabian Journal for Science and Engineering*, **2018**, 43, 2491-2500	2.5	19
212	Using high- and low-salinity seawater injection to maintain the oil reservoir pressure without damage. *Journal of Petroleum Exploration and Production*, **2017**, 7, 589-596	2.2	19
211	Use of Machine Learning and Data Analytics to Detect Downhole Abnormalities While Drilling Horizontal Wells, With Real Case Study. *Journal of Energy Resources Technology, Transactions of the ASME*, **2021**, 143,	2.6	19
210	New Computational Artificial Intelligence Models for Generating Synthetic Formation Bulk Density Logs While Drilling. *Sustainability*, **2020**, 12, 686	3.6	19
209	New approach to evaluate the equivalent circulating density (ECD) using artificial intelligence techniques. *Journal of Petroleum Exploration and Production*, **2019**, 9, 1569-1578	2.2	19
208	BaritePMicromax mixture, an enhanced weighting agent for the elimination of barite sag in invert emulsion drilling fluids. *Journal of Petroleum Exploration and Production*, **2020**, 10, 2427-2435	2.2	18
207	New Robust Model to Evaluate the Total Organic Carbon Using Fuzzy Logic **2019**,		18
206	A Holistic Approach to Develop New Rigorous Empirical Correlation for Static Young's Modulus **2016**,		18
205	New Model for Pore Pressure Prediction While Drilling Using Artificial Neural Networks. *Arabian Journal for Science and Engineering*, **2019**, 44, 6079-6088	2.5	17
204	A review of different approaches for water-based drilling fluid filter cake removal. *Journal of Petroleum Science and Engineering*, **2020**, 192, 107346	4.4	16
203	Real Time Prediction of the Rheological Properties of Oil-Based Drilling Fluids Using Artificial Neural Networks **2018**,		16
202	Removal of water-based filter cake and stimulation of the formation in one-step using an environmentally friendly chelating agent. *International Journal of Oil, Gas and Coal Technology*, **2014**, 7, 169	0.6	16
201	A Self-Adaptive Artificial Neural Network Technique to Predict Total Organic Carbon (TOC) Based on Well Logs. *Arabian Journal for Science and Engineering*, **2019**, 44, 6127-6137	2.5	16

200	A Self-Adaptive Artificial Intelligence Technique to Predict Oil Pressure Volume Temperature Properties. *Energies*, **2018**, 11, 3490	3.1	16
199	Insights into the application of surfactants and nanomaterials as shale inhibitors for water-based drilling fluid: A review. *Journal of Natural Gas Science and Engineering*, **2021**, 92, 103987	4.6	16
198	Effect of Arenite, Calcareous, Argillaceous, and Ferruginous Sandstone Cuttings on Filter Cake and Drilling Fluid Properties in Horizontal Wells. *Geofluids*, **2019**, 2019, 1-10	1.5	15
197	A New Artificial Intelligence Based Empirical Correlation to Predict Sonic Travel Time **2016**,		15
196	Stimulation of Seawater Injectors by GLDA (Glutamic-Di Acetic Acid). *SPE Drilling and Completion*, **2016**, 31, 178-187	1.4	15
195	Modeling of Filter Cake Composition in Maximum Reservoir Contact and Extended Reach Horizontal Wells in Sandstone Reservoirs. *Journal of Energy Resources Technology, Transactions of the ASME*, **2017**, 139,	2.6	15
194	Application of artificial neural network to predict the rate of penetration for S-shape well profile. *Arabian Journal of Geosciences*, **2020**, 13, 1	1.8	15
193	Evaluation of Rock Mechanical Properties Alteration During Matrix Stimulation With Chelating Agents. *Journal of Energy Resources Technology, Transactions of the ASME*, **2016**, 138,	2.6	15
192	Prediction of Bubble Point Pressure Using Artificial Intelligence AI Techniques **2016**,		15
191	The Effect of Weighting Materials on Oil-Well Cement Properties While Drilling Deep Wells. *Sustainability*, **2019**, 11, 6776	3.6	15
190	Enhancing the Rheological Properties of Water-Based Drilling Fluid Using Micronized Starch. *Arabian Journal for Science and Engineering*, **2019**, 44, 5433-5442	2.5	15
189	Unconfined compressive strength (UCS) prediction in real-time while drilling using artificial intelligence tools. *Neural Computing and Applications*, **2021**, 33, 8043-8054	4.8	15
188	Application of Artificial Intelligence Techniques in Estimating Oil Recovery Factor for Water Derive Sandy Reservoirs **2017**,		14
187	Cutting concentration prediction in horizontal and deviated wells using artificial intelligence techniques. *Journal of Petroleum Exploration and Production*, **2019**, 9, 2769-2779	2.2	14
186	Evaluation of the Reaction Kinetics of Diethylenetriaminepentaacetic Acid Chelating Agent and a Converter with Barium Sulfate (Barite) Using a Rotating Disk Apparatus. *Energy & Fuels*, **2018**, 32, 9813-9821	4.1	14
185	Predicting Rate of Penetration Using Artificial Intelligence Techniques **2018**,		14
184	Optimizing the Gel Strength of Water-Based Drilling Fluid Using Clays for Drilling Horizontal and Multi-Lateral Wells **2018**,		14
183	Comparative analysis of artificial intelligence techniques for formation pressure prediction while drilling. *Arabian Journal of Geosciences*, **2019**, 12, 1	1.8	13

182	Application of Machine Learning in Evaluation of the Static Young Modulus for Sandstone Formations. *Sustainability*, **2020**, 12, 1880	3.6	13
181	Prevention of Barite Sag in Water-Based Drilling Fluids by A Urea-Based Additive for Drilling Deep Formations. *Sustainability*, **2020**, 12, 2719	3.6	13
180	Prediction of Pore and Fracture Pressures Using Support Vector Machine **2019**,		13
179	A Hybrid Artificial Intelligence Model to Predict the Elastic Behavior of Sandstone Rocks. *Sustainability*, **2019**, 11, 5283	3.6	13
178	Development of lithology-based static Young's modulus correlations from log data based on data clustering technique. *Journal of Petroleum Science and Engineering*, **2016**, 146, 10-20	4.4	13
177	Reaction Kinetics and Coreflooding Study of High-Temperature Carbonate Reservoir Stimulation Using GLDA in Seawater. *Energies*, **2019**, 12, 3407	3.1	13
176	Removal of Barite-Scale and Barite-Weighted Water- or Oil-Based-Drilling-Fluid Residue in a Single Stage. *SPE Drilling and Completion*, **2019**, 34, 16-26	1.4	13
175	A review on clay chemistry, characterization and shale inhibitors for water-based drilling fluids. *Journal of Petroleum Science and Engineering*, **2021**, 206, 109043	4.4	13
174	New Formulation for Iron Sulfide Scale Removal **2017**,		12
173	Development of Chelating Agent-Based Polymeric Gel System for Hydraulic Fracturing. *Energies*, **2018**, 11, 1663	3.1	12
172	New Robust Model to Estimate Formation Tops in Real Time Using Artificial Neural Networks (ANN). *Petrophysics*, **2019**, 60, 825-837	2	12
171	Rock Strength Prediction in Real-Time While Drilling Employing Random Forest and Functional Network Techniques. *Journal of Energy Resources Technology, Transactions of the ASME*, **2021**, 143,	2.6	12
170	Real-Time Prediction of the Rheological Properties of Water-Based Drill-In Fluid Using Artificial Neural Networks. *Sustainability*, **2019**, 11, 5008	3.6	12
169	Thermochemical Upgrading of Calcium Bentonite for Drilling Fluid Applications. *Journal of Energy Resources Technology, Transactions of the ASME*, **2019**, 141,	2.6	12
168	Development of a new rate of penetration model using self-adaptive differential evolution-artificial neural network. *Arabian Journal of Geosciences*, **2019**, 12, 1	1.8	11
167	Data-Driven Framework to Predict the Rheological Properties of CaCl2 Brine-Based Drill-in Fluid Using Artificial Neural Network. *Energies*, **2019**, 12, 1880	3.1	11
166	Formation Damage Avoidance by Reducing Invasion with Sodium Silicate-Modified Water-Based Drilling Fluid. *Energies*, **2019**, 12, 1485	3.1	11
165	Development of a Homogenous Cement Slurry Using Synthetic Modified Phyllosilicate while Cementing HPHT Wells. *Sustainability*, **2019**, 11, 1923	3.6	11

164	Prevention of hematite settling using synthetic layered silicate while drilling high-pressure wells. *Arabian Journal of Geosciences*, **2020**, 13, 1	1.8	11
163	Impact of Surfactant on the Retention of CO2 and Methane in Carbonate Reservoirs. *Energy & Fuels*, **2018**, 32, 5355-5363	4.1	11
162	Deep Illustration for Loss of Circulation While Drilling. *Arabian Journal for Science and Engineering*, **2020**, 45, 483-499	2.5	11
161	New correlations for better monitoring the all-oil mud rheology by employing artificial neural networks. *Flow Measurement and Instrumentation*, **2021**, 78, 101914	2.2	11
160	Intelligent Prediction of Minimum Miscibility Pressure (MMP) During CO2 Flooding Using Artificial Intelligence Techniques. *Sustainability*, **2019**, 11, 7020	3.6	11
159	Real-time determination of rheological properties of high over-balanced drilling fluid used for drilling ultra-deep gas wells using artificial neural network. *Journal of Natural Gas Science and Engineering*, **2020**, 77, 103224	4.6	10
158	New Hybrid Hole Cleaning Model for Vertical and Deviated Wells. *Journal of Energy Resources Technology, Transactions of the ASME*, **2020**, 142,	2.6	10
157	Enhancing the cement quality using polypropylene fiber. *Journal of Petroleum Exploration and Production*, **2020**, 10, 1097-1107	2.2	10
156	An Overview of the Common Water-Based Formulations Used for Drilling Onshore Gas Wells in the Middle East. *Arabian Journal for Science and Engineering*, **2021**, 46, 6867-6877	2.5	10
155	Improved Predictions in Oil Operations Using Artificial Intelligent Techniques **2019**,		9
154	Removal of Calcium Carbonate Water-Based Filter Cake Using a Green Biodegradable Acid. *Sustainability*, **2020**, 12, 994	3.6	9
153	Effect of exposure time on the compressive strength and formation damage of sandstone while drilling horizontal wells. *Journal of Petroleum Science and Engineering*, **2020**, 195, 107590	4.4	9
152	Real-Time Prediction of Rate of Penetration in S-Shape Well Profile Using Artificial Intelligence Models. *Sensors*, **2020**, 20,	3.8	9
151	Improving class G cement carbonation resistance for applications of geologic carbon sequestration using synthetic polypropylene fiber. *Journal of Natural Gas Science and Engineering*, **2020**, 76, 103184	4.6	9
150	ESTIMATION OF RESERVOIR POROSITY FROM DRILLING PARAMETERS USING ARTIFICIAL NEURAL NETWORKS. *Petrophysics*, **2020**, 61, 318-330	2	9
149	Enhancing Hematite-Based Invert Emulsion Mud Stability at High-Pressure High-Temperature Wells. *ACS Omega*, **2020**, 5, 32689-32696	3.9	9
148	Coupling rate of penetration and mechanical specific energy to Improve the efficiency of drilling gas wells. *Journal of Natural Gas Science and Engineering*, **2020**, 83, 103558	4.6	9
147	Effect of Different Weighting Agents on Drilling Fluids and Filter Cake Properties in Sandstone Formations. *ACS Omega*, **2021**, 6, 16176-16186	3.9	9

146	Application of Artificial Intelligence Techniques to Predict the Well Productivity of Fishbone Wells. *Sustainability*, **2019**, 11, 6083	3.6	9
145	Nanoclay Content Influence on Cement Strength for Oil Wells Subjected to Cyclic Steam Injection and High-Temperature Conditions **2018**,		9
144	Real Time Determination of Rheological Properties of Spud Drilling Fluids Using a Hybrid Artificial Intelligence Technique **2018**,		9
143	New Technology to Evaluate Equivalent Circulating Density While Drilling Using Artificial Intelligence **2018**,		9
142	Prevention of Barite Sagging While Drilling High-Pressure High-Temperature (HPHT) Wells **2018**,		9
141	Application of machine learning models for real-time prediction of the formation lithology and tops from the drilling parameters. *Journal of Petroleum Science and Engineering*, **2021**, 203, 108574	4.4	9
140	Artificial neural network model for real-time prediction of the rate of penetration while horizontally drilling natural gas-bearing sandstone formations. *Arabian Journal of Geosciences*, **2021** , 14, 1	1.8	9
139	Towards a Complete Removal of Barite Weighted Water and Oil Based-Drilling Fluids in Single Stage **2017**,		8
138	Adsorption Role in Shale Gas Recovery and the Feasibility of CO2 in Shale Enhanced Gas Recovery: A Study on Shale Gas from Saudi Arabia **2017**,		8
137	A New Artificial Intelligence Based Empirical Correlation to Predict Sonic Travel Time **2016**,		8
136	Improved durability of Saudi Class G oil-well cement sheath in CO2 rich environments using olive waste. *Construction and Building Materials*, **2020**, 262, 120623	6.7	8
135	Improving Class G Cement Carbonation Resistance Using Nanoclay Particles for Geologic Carbon Sequestration Applications **2018**,		8
134	Predicting Formation Tops while Drilling Using Artificial Intelligence **2018**,		8
133	Fabrication of kaolin-based cement plug for CO 2 storage wells. *Applied Clay Science*, **2017**, 141, 81-87	5.2	7
132	Integrated petrophysical and reservoir characterization workflow to enhance permeability and water saturation prediction. *Journal of African Earth Sciences*, **2017**, 131, 105-116	2.2	7
131	Exposure Time Impact on the Geomechanical Characteristics of Sandstone Formation during Horizontal Drilling. *Molecules*, **2020**, 25,	4.8	7
130	Effect of Formation Cutting Mechanical Properties on Drilling Fluid Properties During Drilling Operations. *Arabian Journal for Science and Engineering*, **2020**, 45, 7763-7772	2.5	7
129	Evaluating the Chemical Reaction of Chelating Agents with Xanthan Gum. *Arabian Journal for Science and Engineering*, **2017**, 42, 1427-1434	2.5	7

128	Rock Drillability Intelligent Prediction for a Complex Lithology Using Artificial Neural Network **2020** ,		7
127	Estimation of the Rate of Penetration While Horizontally Drilling Carbonate Formation Using Random Forest. *Journal of Energy Resources Technology, Transactions of the ASME*, **2021**, 143,	2.6	7
126	Prediction of Surface Oil Rates for Volatile Oil and Gas Condensate Reservoirs Using Artificial Intelligence Techniques. *Journal of Energy Resources Technology, Transactions of the ASME*, **2022**, 144,	2.6	7
125	Development of a New Correlation for Bubble Point Pressure in Oil Reservoirs Using Artificial IntelligenceTechnique **2017**,		6
124	Mitigation of Condensate Banking Using Thermochemical Treatment: Experimental and Analytical Study. *Energies*, **2019**, 12, 800	3.1	6
123	Newly Developed Correlations to Predict the Rheological Parameters of High-Bentonite Drilling Fluid Using Neural Networks. *Sensors*, **2020**, 20,	3.8	6
122	Real Time Prediction of the Rheological Parameters of NaCI Water-Based Drilling Fluid Using Artificial Neural Networks **2017**,		6
121	Enhanced Gas Recovery (EGR) Methods and Production Enhancement Techniques for Shale & Tight Gas Reservoirs **2017**,		6
120	Effect of the Filtrate Fluid of Water-Based Mud on Sandstone Rock Strength and Elastic Moduli. *ACS Omega*, **2020**, 5, 32677-32688	3.9	6
119	Real-Time Prediction of Equivalent Circulation Density for Horizontal Wells Using Intelligent Machines. *ACS Omega*, **2021**, 6, 934-942	3.9	6
118	Drilling Data-Based Approach to Build a Continuous Static Elastic Moduli Profile Utilizing Artificial Intelligence Techniques. *Journal of Energy Resources Technology, Transactions of the ASME*,1-13	2.6	6
117	Intelligent Prediction for Rock Porosity While Drilling Complex Lithology in Real Time. *Computational Intelligence and Neuroscience*, **2021**, 2021, 9960478	3	6
116	Influence of mud filtrate on the pore system of different sandstone rocks. *Journal of Petroleum Science and Engineering*, **2021**, 202, 108595	4.4	6
115	One-Stage Calcium Carbonate Oil-Based Filter Cake Removal Using a New Biodegradable Acid System **2019**,		6
114	New Environmentally Friendly Acid System for Iron Sulfide Scale Removal. *Sustainability*, **2019**, 11, 6727	3.6	6
113	Stability Enhancing of Water-Based Drilling Fluid at High Pressure High Temperature. *Arabian Journal for Science and Engineering*, **2021**, 46, 6895-6901	2.5	6
112	Investigating the Compatibility of Enzyme with Chelating Agents for Calcium Carbonate Filter Cake Removal. *Arabian Journal for Science and Engineering*, **2018**, 43, 2309-2318	2.5	6
111	Artificial Neural Network ANN Approach to Predict Fracture Pressure **2019**,		5

110	A Novel Low-Temperature Non-Corrosive Sulfate/Sulfide Scale Dissolver. *Sustainability*, **2020**, 12, 2455	3.6	5
109	Impact of Perlite on the Properties and Stability of Water-Based Mud in Elevated-Temperature Applications. *ACS Omega*, **2020**, 5, 32573-32582	3.9	5
108	A highlight on the application of industrial and agro wastes in cement-based materials. *Journal of Petroleum Science and Engineering*, **2020**, 195, 107911	4.4	5
107	Overview of the lightweight oil-well cement mechanical properties for shallow wells. *Journal of Petroleum Science and Engineering*, **2021**, 198, 108201	4.4	5
106	Artificial Intelligence Models for Real-Time Bulk Density Prediction of Vertical Complex Lithology Using the Drilling Parameters. *Arabian Journal for Science and Engineering*,1	2.5	5
105	A New Model for Predicting Rate of Penetration Using an Artificial Neural Network. *Sensors*, **2020**, 20,	3.8	5
104	Real-time prediction of rate of penetration while drilling complex lithologies using artificial intelligence techniques. *Ain Shams Engineering Journal*, **2021**, 12, 917-926	4.4	5
103	Impact of sand content on filter cake and invert emulsion drilling fluid properties in extended reach horizontal wells. *International Journal of Oil, Gas and Coal Technology*, **2018**, 19, 135	0.6	5
102	A New Approach to Determine the Rheology Parameters for Water-Based Drilling Fluid Using Artificial Neural Network **2018**,		5
101	Assessing the Effect of Micronized Starch on Rheological and Filtration Properties of Water-Based Drilling Fluid **2019**,		4
100	Impact of methane adsorption on tight rock permeability measurements using pulse-decay. *Petroleum*, **2019**, 5, 382-387	4.1	4
99	Fracture Pressure Prediction Using Surface Drilling Parameters by Artificial Intelligence Techniques. *Journal of Energy Resources Technology, Transactions of the ASME*, **2021**, 143,	2.6	4
98	A new experimental method to prevent paraffin - wax formation on the crude oil wells: A field case study in Libya. *Hemijska Industrija*, **2015**, 69, 269-274	0.6	4
97	APPLICATION OF ARTIFICIAL NEURAL NETWORK TO PREDICT FORMATION BULK DENSITY WHILE DRILLING. *Petrophysics*, **2019**, 60, 660-674	2	4
96	Prediction of Sonic Wave Transit Times From Drilling Parameters While Horizontal Drilling in Carbonate Rocks Using Neural Networks. *Petrophysics*, **2020**, 61, 482-494	2	4
95	Influence of Weighting Materials on the Properties of Oil-Well Cement. *ACS Omega*, **2020**, 5, 27618-27625	3.9	4
94	New Lightweight Cement Formulation for Shallow Oil and Gas Wells. *ACS Omega*, **2020**, 5, 32094-32101	3.9	4
93	Application of Artificial Intelligence Techniques in Predicting the Lost Circulation Zones Using Drilling Sensors. *Journal of Sensors*, **2020**, 2020, 1-18	2	4

92	Effect of perlite particles on the properties of oil-well class G cement. *Journal of Petroleum Science and Engineering*, **2021**, 199, 108344	4.4	4
91	One-Stage Calcium Carbonate Oil-Based Filter Cake Removal Using a New Biodegradable Acid System. *Sustainability*, **2019**, 11, 5715	3.6	4
90	A new look into the prediction of static Young's modulus and unconfined compressive strength of carbonate using artificial intelligence tools. *Petroleum Geoscience*, **2019**, 25, 389-399	1.9	4
89	Investigating the Alteration of Sandstone Pore System and Rock Features by Role of Weighting Materials. *ACS Omega*, **2021**, 6, 4100-4110	3.9	4
88	Investigation of magnetite-based invert emulsion mud at high pressure high temperature. *Arabian Journal of Geosciences*, **2021**, 14, 1	1.8	4
87	Geopolymer as the future oil-well cement: A review. *Journal of Petroleum Science and Engineering*, **2022**, 208, 109485	4.4	4
86	Novel Cake Washer for Removing Oil-Based Calcium Carbonate Filter Cake in Horizontal Wells. *Sustainability*, **2020**, 12, 3427	3.6	3
85	A Novel Solution for Severe Loss Prevention While Drilling Deep Wells. *Sustainability*, **2020**, 12, 1339	3.6	3
84	New Technique to Evaluate the Performance of Hydraulically Fractured Horizontal Wells **2018**,		3
83	Guidelines to define the critical injection flow rate to avoid formation damage during slurry injection into high permeability sandstone. *Engineering Fracture Mechanics*, **2018**, 200, 208-217	4.2	3
82	Rate of Penetration Prediction Using Self-Adaptive Differential Evolution-Artificial Neural Network **2018**,		3
81	A Self-Adaptive Artificial Neural Network Technique to Estimate Static Young's Modulus Based on Well Logs **2022**,		3
80	Machine Learning Models for Equivalent Circulating Density Prediction from Drilling Data. *ACS Omega*, **2021**, 6, 27430-27442	3.9	3
79	The Use of the Granite Waste Material as an Alternative for Silica Flour in Oil-Well Cementing. *ACS Omega*, **2020**, 5, 32341-32348	3.9	3
78	Improving Saudi Class G Oil-Well Cement Properties Using the Tire Waste Material. *ACS Omega*, **2020**, 5, 27685-27691	3.9	3
77	Evaluating the effect of using micronised barite on the properties of water-based drilling fluids. *International Journal of Oil, Gas and Coal Technology*, **2020**, 25, 1	0.6	3
76	Real-time static Poisson's ratio prediction of vertical complex lithology from drilling parameters using artificial intelligence models. *Arabian Journal of Geosciences*, **2021**, 14, 1	1.8	3
75	The impact of weighting materials on carbonate pore system and rock characteristics. *Canadian Journal of Chemical Engineering*,	2.3	3

74	Novel Empirical Correlation for Estimation of the Total Organic Carbon in Devonian Shale From the Spectral Gamma-Ray and Based on the Artificial Neural Networks. *Journal of Energy Resources Technology, Transactions of the ASME*, **2021**, 143,	2.6	3
73	Real-Time Prediction of Acoustic Velocities While Drilling Vertical Complex Lithology Using AI Technique. *Petrophysics*, **2021**, 62, 265-281	2	3
72	Real-time prediction of Poisson's ratio from drilling parameters using machine learning tools. *Scientific Reports*, **2021**, 11, 12611	4.9	3
71	Development of a Unique Organic Acid Solution for Removing Composite Field Scales. *ACS Omega*, **2021**, 6, 1205-1215	3.9	3
70	Real-Time Prediction of the Dynamic Young Modulus from the Drilling Parameters Using the Artificial Neural Networks. *Arabian Journal for Science and Engineering*,1	2.5	3
69	Prediction of Cutting Concentration in Horizontal and Deviated Wells Using Support Vector Machine **2018**,		3
68	Estimating the Total Organic Carbon for Unconventional Shale Resources During the Drilling Process: A Machine Learning Approach. *Journal of Energy Resources Technology, Transactions of the ASME*, **2022**, 144,	2.6	3
67	Prevention of Hematite Settling in Water-Based Mud at High Pressure and High Temperature. *ACS Omega*, **2021**, 6, 23607-23613	3.9	3
66	Sagging Prevention for Hematite-Based Invert Emulsion Mud. *Journal of Energy Resources Technology, Transactions of the ASME*, **2022**, 144,	2.6	3
65	Applying Different Artificial Intelligence Techniques in Dynamic Poisson Ratio Prediction Using Drilling Parameters. *Journal of Energy Resources Technology, Transactions of the ASME*, **2022**, 144,	2.6	3
64	The Role of Drilled Formation in Filter Cake Properties Utilizing Different Weighting Materials. *ACS Omega*, **2021**, 6, 24039-24050	3.9	3
63	Rate of penetration prediction while drilling vertical complex lithology using an ensemble learning model. *Journal of Petroleum Science and Engineering*, **2022**, 208, 109335	4.4	3
62	A review of the various treatments of oil-based drilling fluids filter cakes. *Journal of Petroleum Exploration and Production*, **2022**, 12, 365-381	2.2	3
61	Prediction of Pore and Fracture Pressures Using Support Vector Machine **2019**,		2
60	Rate of Penetration Prediction in Shale Formation Using Fuzzy Logic **2019**,		2
59	Evaluation of using HEDTA chelating agent to clean up long horizontal heterogeneous sandstone wells without divergent. *Journal of Petroleum Exploration and Production*, **2018**, 8, 165-173	2.2	2
58	New Approach to Predict Fracture Pressure Using Functional Networks **2018**,		2
57	Surfactants Impact on CO2 Sequestration for Enhanced Gas Recovery and in Depleted Carbonate Reservoirs **2017**,		2

56	Application of Various Machine Learning Techniques in Predicting Water Saturation in Tight Gas Sandstone Formation. *Journal of Energy Resources Technology, Transactions of the ASME*, **2022**, 144,	2.6	2
55	Assessment of Using Copper Nitrate for Scavenging Hydrogen Sulfide While Drilling Sour Horizontal Wells. *Journal of Energy Resources Technology, Transactions of the ASME*, **2019**, 141,	2.6	2
54	Intelligent Model for Predicting Downhole Vibrations Using Surface Drilling Data During Horizontal Drilling. *Journal of Energy Resources Technology, Transactions of the ASME*,1-19	2.6	2
53	The prediction of wellhead pressure for multiphase flow of vertical wells using artificial neural networks. *Arabian Journal of Geosciences*, **2021**, 14, 1	1.8	2
52	Applications of Artificial Intelligence for Static Poisson's Ratio Prediction While Drilling. *Computational Intelligence and Neuroscience*, **2021**, 2021, 9956128	3	2
51	Real-Time GR logs Estimation While Drilling Using Surface Drilling Data; AI Application. *Arabian Journal for Science and Engineering*,1	2.5	2
50	Prediction Model Based on an Artificial Neural Network for Rock Porosity. *Arabian Journal for Science and Engineering*,1	2.5	2
49	Predicting the Rock Sonic Logs While Drilling by Random Forest and Decision Tree-Based Algorithms. *Journal of Energy Resources Technology, Transactions of the ASME*, **2022**, 144,	2.6	2
48	Developing an Efficient Drilling System by Coupling Torque Modelling with Mechanical Specific Energy **2018**,		2
47	A New Approach to Characterize CO2 Flooding Utilizing Artificial Intelligence Techniques **2018**,		2
46	Effect of Elevated Temperature on the Microstructure of Metakaolin-Based Geopolymer.. *ACS Omega*, **2022**, 7, 10268-10276	3.9	2
45	Artificial neural network models for real-time prediction of the rheological properties of NaCl mud. *Arabian Journal of Geosciences*, **2020**, 13, 1	1.8	1
44	Reaction of Chelating Agents with Guar Gum Polymer for Completion Fluid. *Arabian Journal for Science and Engineering*, **2018**, 43, 6481-6491	2.5	1
43	Prediction of Water Saturation in Tight Gas Sandstone Formation Using Artificial Intelligence.. *ACS Omega*, **2022**, 7, 215-222	3.9	1
42	Ilmenite Inclusion: A Solution towards Solid Sagging for Hematite-Based Invert Emulsion Mud. *Geofluids*, **2022**, 2022, 1-9	1.5	1
41	The Use of Graphite to Improve the Stability of Saudi Class G Oil-Well Cement against the Carbonation Process.. *ACS Omega*, **2022**, 7, 5764-5773	3.9	1
40	Prediction of Lost Circulation Zones Using Artificial Neural Network and Functional Network **2020**,		1
39	Prediction of the Least Principal Stresses Using Drilling Data: A Machine Learning Application. *Computational Intelligence and Neuroscience*, **2021**, 2021, 8865827	3	1

38	Using Manganese Tetroxide for Hematite Settling Prevention in Water-Based Mud. *Arabian Journal for Science and Engineering*,1	2.5	1
37	Machine learning models for generating the drilled porosity log for composite formations. *Arabian Journal of Geosciences*, **2021**, 14, 1	1.8	1
36	Prevention of hematite settling using perlite in water-based drilling fluid. *Journal of Petroleum Science and Engineering*, **2022**, 210, 110030	4.4	1
35	Barium Sulfate Scale Removal at Low-Temperature. *Geofluids*, **2021**, 2021, 1-12	1.5	1
34	Applications of Biodiesel in Drilling Fluids. *Geofluids*, **2021**, 2021, 1-11	1.5	1
33	Data-Driven Modeling Approach for Pore Pressure Gradient Prediction while Drilling from Drilling Parameters. *ACS Omega*, **2021**, 6, 13807-13816	3.9	1
32	Improved Tracking of the Rheological Properties of Max-Bridge Oil-Based Mud Using Artificial Neural Networks. *ACS Omega*, **2021**, 6, 15816-15826	3.9	1
31	Utilization of Artificial Neural Network in Predicting the Total Organic Carbon in Devonian Shale Using the Conventional Well Logs and the Spectral Gamma Ray. *Computational Intelligence and Neuroscience*, **2021**, 2021, 2486046	3	1
30	Comparative Analysis Between Different Artificial Based Models for Predicting Static Poisson Ratio of Sandstone Formations **2020**,		1
29	Improved carbonation resistance and durability of Saudi Class G oil well cement sheath in CO2 rich environments using laponite. *Journal of Petroleum Science and Engineering*, **2021**, 196, 107812	4.4	1
28	Effect of Perlite Particles on Barite Cement Properties. *ACS Omega*, **2021**, 6, 4793-4799	3.9	1
27	Pore Pressure Prediction While Drilling Using Fuzzy Logic **2018**,		1
26	Detection of Loss Zones While Drilling Using Different Machine Learning Techniques. *Journal of Energy Resources Technology, Transactions of the ASME*, **2022**, 144,	2.6	1
25	Workflow to build a continuous static elastic moduli profile from the drilling data using artificial intelligence techniques. *Journal of Petroleum Exploration and Production*, **2021**, 11, 3713-3722	2.2	1
24	Machine Learning Applications to Predict Surface Oil Rates for High Gas Oil Ratio Reservoirs. *Journal of Energy Resources Technology, Transactions of the ASME*,1-19	2.6	1
23	Evaluation of calcined Saudi calcium bentonite as cement replacement in low-density oil-well cement system. *Journal of Petroleum Science and Engineering*, **2021**, 205, 108901	4.4	1
22	Artificial intelligence models for real-time synthetic gamma-ray log generation using surface drilling data in Middle East Oil Field. *Journal of Applied Geophysics*, **2021**, 194, 104462	1.7	1
21	Vermiculite for enhancement of barite stability in water-based mud at elevated temperature. *Powder Technology*, **2022**, 401, 117277	5.2	1

20	Prediction of cohesion and friction angle from well-logging data using decision tree and random forest. *Arabian Journal of Geosciences*, **2022**, 15, 1	1.8	1
19	Evaluation of Qusaiba Kaolinitic Shale as a Supplementary Cementitious Material in Lightweight Oil-Well Cement Formulation.. *ACS Omega*, **2022**, 7, 15090-15097	3.9	1
18	A Novel Artificial Neural Network-Based Correlation for Evaluating the Rate of Penetration in a Natural Gas Bearing Sandstone Formation: A Case Study in a Middle East Oil Field. *Journal of Sensors*, **2022**, 2022, 1-14	2	0
17	Application of Machine Learning to Predict the Failure Parameters from Conventional Well Logs. *Arabian Journal for Science and Engineering*,1	2.5	0
16	Real-time prediction of in-situ stresses while drilling using surface drilling parameters from gas reservoir. *Journal of Natural Gas Science and Engineering*, **2022**, 97, 104368	4.6	0
15	Artificial neural networks-based correlation for evaluating the rate of penetration in a vertical carbonate formation for an entire oil field. *Journal of Petroleum Science and Engineering*, **2022**, 208, 109693	4.4	0
14	Enhancement of Static and Dynamic Sag Performance of Water-Based Mud Using a Synthetic Clay. *ACS Omega*, **2021**, 6, 8179-8188	3.9	0
13	Investigation of Dehydroxylated Sodium Bentonite as a Pozzolanic Extender in Oil-Well Cement. *SPE Drilling and Completion*, **2021**, 36, 730-737	1.4	0
12	Effect of Bentonite Prehydration Time on the Stability of Lightweight Oil-Well Cement System. *Geofluids*, **2021**, 2021, 1-8	1.5	0
11	Applications of Artificial Intelligence to Predict Oil Rate for High Gas-Oil Ratio and Water-Cut Wells. *ACS Omega*, **2021**, 6, 19484-19493	3.9	0
10	Application of Various Machine Learning Techniques in Predicting Total Organic Carbon from Well Logs. *Computational Intelligence and Neuroscience*, **2021**, 2021, 7390055	3	0
9	Machine learning application to predict in-situ stresses from logging data. *Scientific Reports*, **2021**, 11, 23445	4.9	0
8	New Empirical Correlations to Estimate the Least Principal Stresses Using Conventional Logging Data.. *ACS Omega*, **2022**, 7, 13507-13519	3.9	0
7	Machine Learning Model for Monitoring Rheological Properties of Synthetic Oil-Based Mud.. *ACS Omega*, **2022**, 7, 15603-15614	3.9	0
6	The role of overbalance pressure on mud induced alteration of sandstone rock pore system.. *Scientific Reports*, **2022**, 12, 8367	4.9	0
5	Evaluating the Effectiveness of Machine Learning Technologies in Improving Real-Time Drilling Data-Quality. *Journal of Energy Resources Technology, Transactions of the ASME*,1-14	2.6	
4	Prediction of oil rates using Machine Learning for high gas oil ratio and water cut reservoirs. *Flow Measurement and Instrumentation*, **2021**, 82, 102065	2.2	
3	Bulk density prediction while drilling vertical complex lithology using artificial intelligence. *Journal of Applied Geophysics*, **2022**, 199, 104574	1.7	

2	Utilization of adaptive neuro-fuzzy interference system and functional network in prediction of total organic carbon content. *SN Applied Sciences*, **2022**, 4, 1	1.8
1	Removal of Hematite Water-Based Filter Cake Using Hydrochloric Acid. *Geofluids*, **2022**, 2022, 1-10	1.5