Vahid Nourani

List of Publications by Citations

188 papers	4,977 citations	35 h-index	64 g-index
200 ext. papers	6,157 ext. citations	3.5 avg, IF	6.67 L-index

#	Paper	IF	Citations
188	Applications of hybrid wavelet–Artificial Intelligence models in hydrology: A review. *Journal of Hydrology*, **2014**, 514, 358-377	6	419
187	A Multivariate ANN-Wavelet Approach for Rainfall–Runoff Modeling. *Water Resources Management*, **2009**, 23, 2877-2894	3.7	243
186	Two hybrid Artificial Intelligence approaches for modeling rainfall–runoff process. *Journal of Hydrology*, **2011**, 402, 41-59	6	229
185	A combined neural-wavelet model for prediction of Ligvanchai watershed precipitation. *Engineering Applications of Artificial Intelligence*, **2009**, 22, 466-472	7.2	209
184	Daily suspended sediment concentration simulation using ANN and neuro-fuzzy models. *Science of the Total Environment*, **2009**, 407, 4916-27	10.2	184
183	An ANN-based model for spatiotemporal groundwater level forecasting. *Hydrological Processes*, **2008**, 22, 5054-5066	3.3	133
182	Using self-organizing maps and wavelet transforms for space–time pre-processing of satellite precipitation and runoff data in neural network based rainfall–runoff modeling. *Journal of Hydrology*, **2013**, 476, 228-243	6	115
181	A review of the artificial intelligence methods in groundwater level modeling. *Journal of Hydrology*, **2019**, 572, 336-351	6	113
180	Sensitivity analysis of the artificial neural network outputs in simulation of the evaporation process at different climatologic regimes. *Advances in Engineering Software*, **2012**, 47, 127-146	3.6	111
179	Landslide susceptibility mapping at Zonouz Plain, Iran using genetic programming and comparison with frequency ratio, logistic regression, and artificial neural network models. *Natural Hazards*, **2014**, 71, 523-547	3	106
178	An Emotional ANN (EANN) approach to modeling rainfall-runoff process. *Journal of Hydrology*, **2017** , 544, 267-277	6	96
177	River Suspended Sediment Load Prediction: Application of ANN and Wavelet Conjunction Model. *Journal of Hydrologic Engineering - ASCE*, **2011**, 16, 613-627	1.8	94
176	Wavelet-entropy data pre-processing approach for ANN-based groundwater level modeling. *Journal of Hydrology*, **2015**, 524, 255-269	6	89
175	Hybrid Wavelet–Genetic Programming Approach to Optimize ANN Modeling of Rainfall–Runoff Process. *Journal of Hydrologic Engineering - ASCE*, **2012**, 17, 724-741	1.8	83
174	Genetic programming in water resources engineering: A state-of-the-art review. *Journal of Hydrology*, **2018**, 566, 643-667	6	79
173	Multi-step ahead modelling of river water quality parameters using ensemble artificial intelligence-based approach. *Journal of Hydrology*, **2019**, 577, 123962	6	69
172	Wastewater treatment plant performance analysis using artificial intelligence - an ensemble approach. *Water Science and Technology*, **2018**, 78, 2064-2076	2.2	69

171	Daily and monthly suspended sediment load predictions using wavelet based artificial intelligence approaches. *Journal of Mountain Science*, **2015**, 12, 85-100	2.1	68
170	A new approach for simulating and forecasting the rainfall-runoff process within the next two months. *Journal of Hydrology*, **2017**, 548, 588-597	6	66
169	A geomorphology-based ANFIS model for multi-station modeling of rainfall–runoff process. *Journal of Hydrology*, **2013**, 490, 41-55	6	62
168	A hybrid support vector regression–firefly model for monthly rainfall forecasting. *International Journal of Environmental Science and Technology*, **2019**, 16, 335-346	3.3	54
167	Spatiotemporal Groundwater Level Forecasting in Coastal Aquifers by Hybrid Artificial Neural Network-Geostatistics Model: A Case Study. *Environmental Engineering Science*, **2011**, 28, 217-228	2	53
166	Estimation of daily global solar radiation using wavelet regression, ANN, GEP and empirical models: A comparative study of selected temperature-based approaches. *Journal of Atmospheric and Solar-Terrestrial Physics*, **2016**, 149, 131-145	2	50
165	Emotional ANN (EANN) and Wavelet-ANN (WANN) Approaches for Markovian and Seasonal Based Modeling of Rainfall-Runoff Process. *Water Resources Management*, **2018**, 32, 3441-3456	3.7	49
164	Prediction of daily suspended sediment load using wavelet and neurofuzzy combined model. *International Journal of Environmental Science and Technology*, **2010**, 7, 93-110	3.3	49
163	Multi-station artificial intelligence based ensemble modeling of reference evapotranspiration using pan evaporation measurements. *Journal of Hydrology*, **2019**, 577, 123958	6	48
162	Conjunction of SOM-based feature extraction method and hybrid wavelet-ANN approach for rainfall–runoff modeling. *Journal of Hydroinformatics*, **2013**, 15, 829-848	2.6	48
161	Semi-distributed flood runoff model at the subcontinental scale for southwestern Iran. *Hydrological Processes*, **2007**, 21, 3173-3180	3.3	48
160	Comparative evaluation of intelligent algorithms to improve adaptive neuro-fuzzy inference system performance in precipitation modelling. *Journal of Hydrology*, **2019**, 571, 214-224	6	47
159	Spatiotemporal groundwater level modeling using hybrid artificial intelligence-meshless method. *Journal of Hydrology*, **2016**, 536, 10-25	6	47
158	Evaluation of a Two-Stage SVM and Spatial Statistics Methods for Modeling Monthly River Suspended Sediment Load. *Water Resources Management*, **2016**, 30, 393-407	3.7	47
157	A Pareto-optimal moving average-multigene genetic programming model for rainfall-runoff modelling. *Environmental Modelling and Software*, **2017**, 92, 239-251	5.2	46
156	Three geomorphological rainfall–runoff models based on the linear reservoir concept. *Catena*, **2009**, 76, 206-214	5.8	40
155	Hybrid Wavelet-M5 Model Tree for Rainfall-Runoff Modeling. *Journal of Hydrologic Engineering - ASCE*, **2019**, 24, 04019012	1.8	38
154	Trend analysis of hydroclimatological variables in Urmia lake basin using hybrid wavelet Mann–Kendall and Şen tests. *Environmental Earth Sciences*, **2018**, 77, 1	2.9	36

153	Earthfill dam seepage analysis using ensemble artificial intelligence based modeling. *Journal of Hydroinformatics*, **2018**, 20, 1071-1084	2.6	35
152	Two Semidistributed ANN-Based Models for Estimation of Suspended Sediment Load. *Journal of Hydrologic Engineering - ASCE*, **2012**, 17, 1368-1380	1.8	34
151	Neuro-fuzzy models employing wavelet analysis for suspended sediment concentration prediction in rivers. *Hydrological Sciences Journal*, **2010**, 55, 1175-1189	3.5	33
150	An emotional artificial neural network for prediction of vehicular traffic noise. *Science of the Total Environment*, **2020**, 707, 136134	10.2	33
149	Application of a hybrid association rules/decision tree model for drought monitoring. *Global and Planetary Change*, **2017**, 159, 37-45	4.2	32
148	Artificial intelligence based ensemble model for prediction of vehicular traffic noise. *Environmental Research*, **2020**, 180, 108852	7.9	32
147	Multi-step ahead modeling of reference evapotranspiration using a multi-model approach. *Journal of Hydrology*, **2020**, 581, 124434	6	31
146	A Wavelet Based Data Mining Technique for Suspended Sediment Load Modeling. *Water Resources Management*, **2019**, 33, 1769-1784	3.7	30
145	Integrated Artificial Neural Network for Spatiotemporal Modeling of Rainfall Runoff Sediment Processes. *Environmental Engineering Science*, **2010**, 27, 411-422	2	30
144	On the pore structures of lightweight self-compacting concrete containing silica fume. *Construction and Building Materials*, **2018**, 193, 557-564	6.7	30
143	Data-driven ensemble model to statistically downscale rainfall using nonlinear predictor screening approach. *Journal of Hydrology*, **2018**, 565, 538-551	6	30
142	A binary genetic programing model for teleconnection identification between global sea surface temperature and local maximum monthly rainfall events. *Journal of Hydrology*, **2017**, 555, 397-406	6	29
141	Application of ant colony optimization to optimal design of open channels. *Journal of Hydraulic Research/De Recherches Hydrauliques*, **2009**, 47, 656-665	1.9	29
140	Development of Nonlinear Model Based on Wavelet-ANFIS for Rainfall Forecasting at Klang Gates Dam. *Water Resources Management*, **2014**, 28, 2999-3018	3.7	28
139	Forecasting Daily Precipitation Using Hybrid Model of Wavelet-Artificial Neural Network and Comparison with Adaptive Neurofuzzy Inference System (Case Study: Verayneh Station, Nahavand). *Advances in Civil Engineering*, **2014**, 2014, 1-12	1.3	28
138	Conjunction of emotional ANN (EANN) and wavelet transform for rainfall-runoff modeling. *Journal of Hydroinformatics*, **2019**, 21, 136-152	2.6	28
137	Season Algorithm-Multigene Genetic Programming: A New Approach for Rainfall-Runoff Modelling. *Water Resources Management*, **2018**, 32, 2665-2679	3.7	27
136	Integration of Artificial Neural Networks with Radial Basis Function Interpolation in Earthfill Dam Seepage Modeling. *Journal of Computing in Civil Engineering*, **2013**, 27, 183-195	5	27

135	Conjunction of a newly proposed emotional ANN (EANN) and wavelet transform for suspended sediment load modeling. *Water Science and Technology: Water Supply*, **2019**, 19, 1726-1734	1.4	26
134	Estimation of prediction interval in ANN-based multi-GCMs downscaling of hydro-climatologic parameters. *Journal of Hydrology*, **2019**, 579, 124226	6	26
133	Genetic Programming Simulation of Dam Breach Hydrograph and Peak Outflow Discharge. *Journal of Hydrologic Engineering - ASCE*, **2014**, 19, 757-768	1.8	26
132	Investigating the Ability of Artificial Neural Network (ANN) Models to Estimate Missing Rain-gauge Data. *Journal of Environmental Informatics*, **2012**, 19, 38-50	3	26
131	ANN-based statistical downscaling of climatic parameters using decision tree predictor screening method. *Theoretical and Applied Climatology*, **2019**, 137, 1729-1746	3	26
130	Multi-region Modeling of Daily Global Solar Radiation with Artificial Intelligence Ensemble. *Natural Resources Research*, **2019**, 28, 1217-1238	4.9	25
129	Using artificial neural networks (ANNs) for sediment load forecasting of Talkherood river mouth. *Journal of Urban and Environmental Engineering*, **2009**, 3, 1-6	1.5	25
128	Threshold-Based Hybrid Data Mining Method for Long-Term Maximum Precipitation Forecasting. *Water Resources Management*, **2017**, 31, 2645-2658	3.7	23
127	A new hybrid algorithm for rainfallRunoff process modeling based on the wavelet transform and genetic fuzzy system. *Journal of Hydroinformatics*, **2014**, 16, 1004-1024	2.6	22
126	Liquid Analog Model for Laboratory Simulation of RainfallRunoff Process. *Journal of Hydrologic Engineering - ASCE*, **2007**, 12, 246-255	1.8	21
125	Data mining based on wavelet and decision tree for rainfall-runoff simulation **2019**, 50, 75-84		21
124	Multi-station streamflow forecasting using wavelet denoising and artificial intelligence models. *Procedia Computer Science*, **2017**, 120, 617-624	1.6	20
123	Artificial Intelligence Based Ensemble Modeling for Multi-Station Prediction of Precipitation. *Atmosphere*, **2019**, 10, 80	2.7	20
122	Assessment of land use and climate change effects on land subsidence using a hydrological model and radar technique. *Journal of Hydrology*, **2019**, 578, 124070	6	19
121	Pareto-optimal MPSA-MGGP: A new gene-annealing model for monthly rainfall forecasting. *Journal of Hydrology*, **2019**, 571, 406-415	6	19
120	A multiscale time-space approach to analyze and categorize the precipitation fluctuation based on the wavelet transform and information theory concept **2018**, 49, 724-743		19
119	Hybrid of SOM-Clustering Method and Wavelet-ANFIS Approach to Model and Infill Missing Groundwater Level Data. *Journal of Hydrologic Engineering - ASCE*, **2016**, 21, 05016018	1.8	19
118	Conjunction of wavelet transform and SOM-mutual information data pre-processing approach for AI-based Multi-Station nitrate modeling of watersheds. *Journal of Hydrology*, **2017**, 548, 170-183	6	18

117	Emotional artificial neural networks (EANNs) for multi-step ahead prediction of monthly precipitation; case study: northern Cyprus. *Theoretical and Applied Climatology*, **2019**, 138, 1419-1434	3	18
116	Application of different clustering approaches to hydroclimatological catchment regionalization in mountainous regions, a case study in Utah State. *Journal of Mountain Science*, **2018**, 15, 461-484	2.1	18
115	Spatiotemporal variation of water pollution near landfill site: Application of clustering methods to assess the admissibility of LWPI. *Journal of Hydrology*, **2020**, 591, 125581	6	18
114	Multi-Site Calibration of Linear Reservoir Based Geomorphologic Rainfall-Runoff Models. *Water (Switzerland)*, **2014**, 6, 2690-2716	3	17
113	Integrated ANN model for earthfill dams seepage analysis: Sattarkhan Dam in Iran. *Artificial Intelligence Research*, **2012**, 1, 22	0.3	17
112	Geomorphology-based genetic programming approach for rainfall–runoff modeling. *Journal of Hydroinformatics*, **2013**, 15, 427-445	2.6	17
111	Rainfall time series disaggregation in mountainous regions using hybrid wavelet-artificial intelligence methods. *Environmental Research*, **2019**, 168, 306-318	7.9	17
110	Wavelet-based trend analysis of hydrological processes at different timescales. *Journal of Water and Climate Change*, **2015**, 6, 414-435	2.3	16
109	Implementation of artificial neural network technique in the simulation of dam breach hydrograph. *Journal of Hydroinformatics*, **2012**, 14, 478-496	2.6	16
108	An integrated simulation-optimization framework to optimize the reservoir operation adapted to climate change scenarios. *Journal of Hydrology*, **2020**, 587, 125018	6	16
107	Self-organizing map clustering technique for ANN-based spatiotemporal modeling of groundwater quality parameters. *Journal of Hydroinformatics*, **2016**, 18, 288-309	2.6	16
106	Conjunction of wavelet-entropy and SOM clustering for multi-GCM statistical downscaling **2019**, 50, 1-23		16
105	Hybrid denoising-jittering data pre-processing approach to enhance multi-step-ahead rainfall–runoff modeling. *Stochastic Environmental Research and Risk Assessment*, **2018**, 32, 545-562	3.5	15
104	Improving capability of conceptual modeling of watershed rainfall–runoff using hybrid wavelet-extreme learning machine approach. *Journal of Hydroinformatics*, **2018**, 20, 69-87	2.6	15
103	Conjunction of radial basis function interpolator and artificial intelligence models for time-space modeling of contaminant transport in porous media. *Journal of Hydrology*, **2017**, 548, 569-587	6	14
102	Topmodel capability for rainfall-runoff modeling of the Ammameh watershed at different time scales using different terrain algorithms. *Journal of Urban and Environmental Engineering*, **2011**, 5, 1-14	1.5	14
101	Optimal Design and Feature Selection by Genetic Algorithm for Emotional Artificial Neural Network (EANN) in Rainfall-Runoff Modeling. *Water Resources Management*, **2021**, 35, 2369-2384	3.7	14
100	Data pre-processing effect on ANN-based prediction intervals construction of the evaporation process at different climate regions in Iran. *Journal of Hydrology*, **2020**, 588, 125078	6	13

99	Multi-station runoff-sediment modeling using seasonal LSTM models. *Journal of Hydrology*, **2021**, 601, 126672	6	13
98	Wavelet-based regularization of the extracted topographic index from high-resolution topography for hydro-geomorphic applications. *Hydrological Processes*, **2014**, 28, 1345-1357	3.3	12
97	Investigating the effect of hydroclimatological variables on Urmia Lake water level using wavelet coherence measure. *Journal of Water and Climate Change*, **2019**, 10, 13-29	2.3	12
96	A new approach to flow simulation using hybrid models. *Applied Water Science*, **2017**, 7, 3691-3706	5	11
95	Multifractal description of daily rainfall fields over India. *Journal of Hydrology*, **2020**, 586, 124913	6	11
94	Evaluation of Wavelet-Based De-noising Approach in Hydrological Models Linked to Artificial Neural Networks **2014**, 209-241		11
93	Performance prediction of tunnel boring machine through developing high accuracy equations: A case study in adverse geological condition. *Measurement: Journal of the International Measurement Confederation*, **2020**, 152, 107244	4.6	11
92	Data pre-post processing methods in AI-based modeling of seepage through earthen dams. *Measurement: Journal of the International Measurement Confederation*, **2019**, 147, 106820	4.6	10
91	Multi-parametric modeling of water treatment plant using AI-based non-linear ensemble **2019**, 68, 547-561		10
90	Emotional ANN (EANN): A New Generation of Neural Networks for Hydrological Modeling in IoT. *Transactions on Computational Science and Computational Intelligence*, **2019**, 45-61	0.9	10
89	Wavelet-Exponential Smoothing: a New Hybrid Method for Suspended Sediment Load Modeling. *Environmental Processes*, **2019**, 6, 191-218	2.8	10
88	Effect of semi-rigid connections in improvement of seismic performance of steel moment-resisting frames. *Steel and Composite Structures*, **2015**, 19, 467-484		9
87	Spatiotemporal precipitation modeling by artificial intelligence-based ensemble approach. *Environmental Earth Sciences*, **2020**, 79, 1	2.9	9
86	Ensemble data-driven rainfall-runoff modeling using multi-source satellite and gauge rainfall data input fusion. *Earth Science Informatics*,1	2.5	9
85	Artificial intelligence based ensemble modeling of wastewater treatment plant using jittered data. *Journal of Cleaner Production*, **2021**, 291, 125772	10.3	9
84	Sustainable Management of Reservoir Water Quality and Quantity Through Reservoir Operational Strategy and Watershed Control Strategies. *International Journal of Environmental Research*, **2018**, 12, 773-788	2.9	9
83	Implication of remotely sensed data to incorporate land cover effect into a linear reservoir-based rainfall□unoff model. *Journal of Hydrology*, **2015**, 529, 94-105	6	8
82	Wavelet-IANN model for predicting flow discharge up to several days and months ahead. *Journal of Hydroinformatics*, **2018**, 20, 134-148	2.6	8

81	Prediction Interval Estimation Methods for Artificial Neural Network (ANN)-Based Modeling of the Hydro-Climatic Processes, a Review. *Sustainability*, **2021**, 13, 1633	3.6	8
80	Integration of hard and soft supervised machine learning for flood susceptibility mapping. *Journal of Environmental Management*, **2021**, 291, 112731	7.9	8
79	Application of hydrogeological and biological research for the lysimeter experiment performance under simulated municipal landfill condition. *Journal of Material Cycles and Waste Management*, **2019**, 21, 1477-1487	3.4	7
78	Unsteady 2-D seepage simulation using physical analog, case of Sattarkhan embankment dam. *Journal of Hydrology*, **2014**, 519, 177-189	6	7
77	Coupling wavelet transform with multivariate adaptive regression spline for simulating suspended sediment load: Independent testing approach. *ISH Journal of Hydraulic Engineering*, **2020**, 1-10	1.5	7
76	Development of artificial intelligence models for well groundwater quality simulation: Different modeling scenarios. *PLoS ONE*, **2021**, 16, e0251510	3.7	7
75	Estimation of Suspended Sediment Load Using Artificial Intelligence-Based Ensemble Model. *Complexity*, **2021**, 2021, 1-19	1.6	7
74	An inverse method for watershed change detection using hybrid conceptual and artificial intelligence approaches. *Journal of Hydrology*, **2018**, 562, 371-384	6	7
73	Hydrological model parameterization using NDVI values to account for the effects of land cover change on the rainfall□unoff response **2017**, 48, 1455-1473		6
72	Experimental and AI-based numerical modeling of contaminant transport in porous media. *Journal of Contaminant Hydrology*, **2017**, 205, 78-95	3.9	6
71	Capability of Artificial Neural Network for Detecting Hysteresis Phenomenon Involved in Hydrological Processes. *Journal of Hydrologic Engineering - ASCE*, **2014**, 19, 896-906	1.8	6
70	Ecological-environmental quality estimation using remote sensing and combined artificial intelligence techniques. *Journal of Hydroinformatics*, **2021**, 23, 47-65	2.6	6
69	A COMPARATIVE STUDY ON CALIBRATION METHODS OF NASH□ RAINFALL-RUNOFF MODEL TO AMMAMEH WATERSHED, IRAN. *Journal of Urban and Environmental Engineering*, **2008**, 2, 14-20	1.5	6
68	Studying of flow model and bed load transport in a coarse bed river: case study □Aland River, Iran. *Journal of Hydroinformatics*, **2011**, 13, 850-866	2.6	5
67	Artificial intelligence models for suspended river sediment prediction: state-of-the art, modeling framework appraisal, and proposed future research directions. *Engineering Applications of Computational Fluid Mechanics*, **2021**, 15, 1585-1612	4.5	5
66	Application of Entropy Concept for Input Selection of Wavelet-ANN based Rainfall-Runoff Modeling. *Journal of Environmental Informatics*,	3	5
65	Application of Z-numbers to monitor drought using large-scale oceanic-atmospheric parameters. *Journal of Hydrology*, **2021**, 598, 126198	6	5
64	Hybrid denoising-jittering data processing approach to enhance sediment load prediction of muddy rivers. *Journal of Mountain Science*, **2016**, 13, 2135-2146	2.1	5

63	A cost model with several hydraulic constraints for optimizing in practice a trapezoidal cross section. *Journal of Hydroinformatics*, **2017**, 19, 456-468	2.6	4
62	Wavelet Based Artificial Intelligence Approaches for Prediction of Hydrological Time Series. *Lecture Notes in Computer Science*, **2015**, 422-435	0.9	4
61	Robust clustering for assessing the spatiotemporal variability of groundwater quantity and quality. *Journal of Hydrology*, **2022**, 604, 127272	6	4
60	The potential of integrated hybrid pre-post-processing techniques for short- to long-term drought forecasting. *Journal of Hydroinformatics*, **2021**, 23, 117-135	2.6	4
59	Geomorphological Runoff Routing Modeling Based on Linear Reservoirs Cascade. *Journal of Applied Sciences*, **2008**, 8, 1660-1667	0.3	4
58	Climate change or regional human impacts? Remote sensing tools, artificial neural networks, and wavelet approaches aim to solve the problem **2021**, 52, 176-195		4
57	Investigating the main reasons for the tragedy of large saline lakes: Drought, climate change, or anthropogenic activities? A call to action. *Journal of Arid Environments*, **2022**, 196, 104652	2.5	4
56	Wavelet Packet-Genetic Programming: A New Model for Meteorological Drought Hindcasting. *Teknik Dergi/Technical Journal of Turkish Chamber of Civil Engineers*,	2	4
55	Investigation of climate, land cover and lake level pattern changes and interactions using remotely sensed data and wavelet analysis. *Ecological Informatics*, **2021**, 64, 101330	4.2	4
54	A New Evolutionary Hybrid Random Forest Model for SPEI Forecasting. *Water (Switzerland)*, **2022**, 14, 755	3	4
53	Detection of land use/cover change effect on watershed's response in generating runoff using computational intelligence approaches. *Stochastic Environmental Research and Risk Assessment*, **2017**, 31, 1341-1357	3.5	3
52	Evaluation of nonlinear models for precipitation forecasting. *Hydrological Sciences Journal*, **2017**, 62, 2695-2704	3.5	3
51	ANN-RBF Hybrid Model for Spatiotemporal Estimation of Monthly Precipitation Case Study. *International Journal of Applied Metaheuristic Computing*, **2013**, 4, 1-16	0.8	3
50	Application of Z-numbers to teleconnection modeling between monthly precipitation and large scale sea surface temperature		3
49	Impact of climate change on hydro-climatological parameters in North Cyprus: application of artificial intelligence-based statistical downscaling models. *Journal of Hydroinformatics*,	2.6	3
48	A comparison of frameworks for separating the impacts of human activities and climate change on river flow in existing records and different near-future scenarios. *Hydrological Processes*, **2021**, 35, e14301	3.3	3
47	Evaluation of the effluent quality parameters of wastewater treatment plant based on uncertainty analysis and post-processing approaches (case study). *Water Science and Technology*, **2021**, 83, 1633-1648	2.2	3
46	Forecasting CO pollutant concentration of Tabriz city air using artificial neural network and adaptive neuro-fuzzy inference system and its impact on sustainable development of urban. *Environmental Earth Sciences*, **2021**, 80, 1	2.9	3

45	Conjunction of artificial intelligence-meshless methods for contaminant transport modeling in porous media: an experimental case study. *Journal of Hydroinformatics*, **2018**, 20, 1163-1179	2.6	3
44	The utility of a hybrid GEOMOD-Markov Chain model of land-use change in the context of highly water-demanding agriculture in a semi-arid region. *Ecological Informatics*, **2021**, 64, 101332	4.2	3
43	Quantity and Quality Modeling of Groundwater by Conjugation of ANN and Co-Kriging Approaches **2012**,		2
42	Using Hybrid ARIMAX-ANN Model for Simulating Rainfall - Runoff - Sediment Process Case Study. *International Journal of Applied Metaheuristic Computing*, **2013**, 4, 44-60	0.8	2
41	Flood susceptibility mapping in densely populated urban areas using MCDM and fuzzy techniques. *IOP Conference Series: Earth and Environmental Science*,491, 012003	0.3	2
40	Assessment of MC&MCMC uncertainty analysis frameworks on SWAT model by focusing on future runoff prediction in a mountainous watershed via CMIP5 models. *Journal of Water and Climate Change*, **2020**, 11, 1811-1828	2.3	2
39	Using Hybrid Wavelet-Exponential Smoothing Approach for Streamflow Modeling. *Complexity*, **2021**, 2021, 1-17	1.6	2
38	Wavelet-based multi station disaggregation of rainfall time series in mountainous regions **2019**, 50, 545-561		2
37	Multi-station artificial intelligence based ensemble modeling of suspended sediment load. *Water Science and Technology: Water Supply*,	1.4	2
36	Spatiotemporal Analysis of Droughts Over Different Climate Regions Using Hybrid Clustering Method. *Water Resources Management*,1	3.7	2
35	Conjunction of cluster ensemble-model ensemble techniques for spatiotemporal assessment of groundwater depletion in semi-arid plains. *Journal of Hydrology*, **2022**, 610, 127984	6	2
34	Spatial downscaling of radar-derived rainfall field by two-dimensional wavelet transform **2020**, 51, 456-469		1
33	Cascade-based multi-scale AI approach for modeling rainfall-runoff process **2018**, 49, 1191-1207		1
32	Linking Spatial□emporal Changes of Vegetation Cover with Hydroclimatological Variables in Terrestrial Environments with a Focus on the Lake Urmia Basin. *Land*, **2022**, 11, 115	3.5	1
31	Improving the performance of random forest for estimating monthly reservoir inflow via complete ensemble empirical mode decomposition and wavelet analysis. *Stochastic Environmental Research and Risk Assessment*,1	3.5	1
30	Multi-station calibration strategy for evaluation and sensitivity analysis of the snowmelt runoff model using MODIS satellite images		1
29	Artificial Intelligence Based and Linear Conventional Techniques for Reference Evapotranspiration Modeling. *Advances in Intelligent Systems and Computing*, **2020**, 197-204	0.4	1
28	Non-linear Ensemble Modeling for Multi-step Ahead Prediction of Treated COD in Wastewater Treatment Plant. *Advances in Intelligent Systems and Computing*, **2020**, 683-689	0.4	1

27	A statistical framework to project wave climate and energy potential in the Caspian Sea: application of CMIP6 scenarios. *International Journal of Environmental Science and Technology*,1	3.3	1
26	A novel multi-model data-driven ensemble approach for the prediction of particulate matter concentration. *Environmental Science and Pollution Research*, **2021**, 28, 49663-49677	5.1	1
25	Reconstruction of network connectivity by the interplay between complex structure and dynamics to discover climate networks. *Theoretical and Applied Climatology*, **2021**, 143, 969-987	3	1
24	Sensitivity analysis and ensemble artificial intelligence-based model for short-term prediction of NO2 concentration. *International Journal of Environmental Science and Technology*, **2021**, 18, 2703-2722	3.3	1
23	Stochastic long-term reliability of water distribution networks using Monte Carlo simulation. *Urban Water Journal*,1-10	2.3	1
22	The Accuracy of Precipitation Forecasts at Timescales of 1–15 Days in the Volta River Basin. *Remote Sensing*, **2022**, 14, 937	5	1
21	Spatiotemporal evaluation of future groundwater recharge in arid and semi-arid regions under climate change scenarios. *Hydrological Sciences Journal*,	3.5	1
20	Application of a novel technique of the multi-discrete wavelet transforms in hybrid with artificial neural network to forecast the daily and monthly streamflow. *Modeling Earth Systems and Environment*,1	3.2	1
19	Deep learning-based uncertainty quantification of groundwater level predictions. *Stochastic Environmental Research and Risk Assessment*,1	3.5	0
18	The Applications of Soft Computing Methods for Seepage Modeling: A Review. *Water (Switzerland)*, **2021**, 13, 3384	3	0
17	Application of PPIE method to assess the uncertainty and accuracy of multi-climate model-based temperature and precipitation downscaling. *Theoretical and Applied Climatology*, **2022**, 147, 1327	3	0
16	The Skills of Medium-Range Precipitation Forecasts in the Senegal River Basin. *Sustainability*, **2022**, 14, 3349	3.6	0
15	Uncertainty assessment of LSTM based groundwater level predictions. *Hydrological Sciences Journal*,1-18	3.5	0
14	Multi-step-ahead solar irradiance modeling employing multi-frequency deep learning models and climatic data. *Applied Energy*, **2022**, 315, 119069	10.7	0
13	On the detection and attribution of streamflow persistence of rivers in Peninsular India. *Acta Geophysica*, **2022**, 70, 1373-1383	2.2	0
12	Investigating sea-level change on the coastal aquifer, case study: Jafakendeh aquifer. *Modeling Earth Systems and Environment*, **2020**, 7, 2643	3.2	
11	Downscaling Precipitation from GCM Parameters Using Recurrent Neural Networks. *Lecture Notes in Networks and Systems*, **2022**, 294-301	0.5	
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