Sudheer Kp

List of Publications by Citations

88 papers	4,875 citations	34 h-index	69 g-index
91 ext. papers	5,468 ext. citations	3.7 avg, IF	5.86 L-index

#	Paper	IF	Citations
88	Methods used for the development of neural networks for the prediction of water resource variables in river systems: Current status and future directions. *Environmental Modelling and Software*, **2010**, 25, 891-909	5.2	532
87	A neuro-fuzzy computing technique for modeling hydrological time series. *Journal of Hydrology*, **2004**, 291, 52-66	6	460
86	A data-driven algorithm for constructing artificial neural network rainfall-runoff models. *Hydrological Processes*, **2002**, 16, 1325-1330	3.3	290
85	Groundwater Level Forecasting in a Shallow Aquifer Using Artificial Neural Network Approach. *Water Resources Management*, **2006**, 20, 77-90	3.7	227
84	Estimating Actual Evapotranspiration from Limited Climatic Data Using Neural Computing Technique. *Journal of Irrigation and Drainage Engineering - ASCE*, **2003**, 129, 214-218	1.1	181
83	Short-term flood forecasting with a neurofuzzy model. *Water Resources Research*, **2005**, 41,	5.4	172
82	Sensitivity and identifiability of stream flow generation parameters of the SWAT model. *Hydrological Processes*, **2010**, 24, 1133-1148	3.3	170
81	Modelling evaporation using an artificial neural network algorithm. *Hydrological Processes*, **2002**, 16, 3189-3202	3.3	155
80	Rainfall-runoff modelling using artificial neural networks: comparison of network types. *Hydrological Processes*, **2005**, 19, 1277-1291	3.3	151
79	Identification of physical processes inherent in artificial neural network rainfall runoff models. *Hydrological Processes*, **2004**, 18, 571-581	3.3	140
78	Fuzzy computing based rainfall–runoff model for real time flood forecasting. *Hydrological Processes*, **2005**, 19, 955-968	3.3	124
77	Artificial Neural Network Modeling for Groundwater Level Forecasting in a River Island of Eastern India. *Water Resources Management*, **2010**, 24, 1845-1865	3.7	120
76	Fitting of Hydrologic Models: A Close Look at the Nash–Sutcliffe Index. *Journal of Hydrologic Engineering - ASCE*, **2008**, 13, 981-986	1.8	119
75	Models for estimating evapotranspiration using artificial neural networks, and their physical interpretation. *Hydrological Processes*, **2008**, 22, 2225-2234	3.3	104
74	Ultimate bearing capacity prediction of shallow foundations on cohesionless soils using neurofuzzy models. *Computers and Geotechnics*, **2008**, 35, 33-46	4.4	104
73	Radial Basis Function Neural Network for Modeling Rating Curves. *Journal of Hydrologic Engineering - ASCE*, **2003**, 8, 161-164	1.8	102
72	Development and verification of a non-linear disaggregation method (NL-DisTrad) to downscale MODIS land surface temperature to the spatial scale of Landsat thermal data to estimate evapotranspiration. *Remote Sensing of Environment*, **2013**, 135, 118-129	13.2	98

71	Explaining the internal behaviour of artificial neural network river flow models. *Hydrological Processes*, **2004**, 18, 833-844	3.3	95
70	Potential application of wavelet neural network ensemble to forecast streamflow for flood management. *Journal of Hydrology*, **2016**, 536, 161-173	6	80
69	Improving peak flow estimates in artificial neural network river flow models. *Hydrological Processes*, **2003**, 17, 677-686	3.3	75
68	A simplified approach to quantifying predictive and parametric uncertainty in artificial neural network hydrologic models. *Water Resources Research*, **2007**, 43,	5.4	74
67	Indian Summer Monsoon Rainfall: Implications of Contrasting Trends in the Spatial Variability of Means and Extremes. *PLoS ONE*, **2016**, 11, e0158670	3.7	70
66	Using Artificial Neural Network Approach for Simultaneous Forecasting of Weekly Groundwater Levels at Multiple Sites. *Water Resources Management*, **2015**, 29, 5521-5532	3.7	69
65	Knowledge Extraction from Trained Neural Network River Flow Models. *Journal of Hydrologic Engineering - ASCE*, **2005**, 10, 264-269	1.8	67
64	Quantification of the predictive uncertainty of artificial neural network based river flow forecast models. *Stochastic Environmental Research and Risk Assessment*, **2013**, 27, 137-146	3.5	63
63	Constructing prediction interval for artificial neural network rainfall runoff models based on ensemble simulations. *Journal of Hydrology*, **2013**, 499, 275-288	6	62
62	Dynamic integration of land use changes in a hydrologic assessment of a rapidly developing Indian catchment. *Science of the Total Environment*, **2016**, 539, 153-164	10.2	58
61	Planning groundwater development in coastal aquifers / Planification du développement de la ressource en eau souterraine des aquifères côtiers. *Hydrological Sciences Journal*, **2004**, 49, 155-170	3.5	57
60	An improved bias correction method of daily rainfall data using a sliding window technique for climate change impact assessment. *Journal of Hydrology*, **2018**, 556, 100-118	6	52
59	Rainfall-runoff modeling through hybrid intelligent system. *Water Resources Research*, **2007**, 43,	5.4	51
58	Role of Dams on the Floods of August 2018 in Periyar River Basin, Kerala. *Current Science*, **2019**, 116, 780	2.2	43
57	Deficit irrigation management for rice using crop growth simulation model in an optimization framework. *Paddy and Water Environment*, **2009**, 7, 135-149	1.6	38
56	Marginal land suitability for switchgrass, Miscanthus and hybrid poplar in the Upper Mississippi River Basin (UMRB). *Environmental Modelling and Software*, **2017**, 93, 356-365	5.2	36
55	LAKE WATER QUALITY ASSESSMENT FROM LANDSAT THEMATIC MAPPER DATA USING NEURAL NETWORK: AN APPROACH TO OPTIMAL BAND COMBINATION SELECTION1. *Journal of the American Water Resources Association*, **2006**, 42, 1683-1695	2.1	36
54	Predictions in ungauged basins: an approach for regionalization of hydrological models considering the probability distribution of model parameters. *Stochastic Environmental Research and Risk Assessment*, **2016**, 30, 1131-1149	3.5	34

53	Application of a pseudo simulator to evaluate the sensitivity of parameters in complex watershed models. *Environmental Modelling and Software*, **2011**, 26, 135-143	5.2	34
52	Application of distributed hydrological models for predictions in ungauged basins: a method to quantify predictive uncertainty. *Hydrological Processes*, **2014**, 28, 2033-2045	3.3	29
51	Digital image processing for determining drop sizes from irrigation spray nozzles. *Agricultural Water Management*, **2000**, 45, 159-167	5.9	29
50	Methods used for quantifying the prediction uncertainty of artificial neural network based hydrologic models. *Stochastic Environmental Research and Risk Assessment*, **2017**, 31, 1659-1670	3.5	24
49	Design of Water Distribution Network for Equitable Supply. *Water Resources Management*, **2012**, 26, 391-406	3.7	23
48	Comparison of methods used for quantifying prediction interval in artificial neural network hydrologic models. *Modeling Earth Systems and Environment*, **2016**, 2, 1	3.2	21
47	Analysis of monsoon rainfall variability over Narmada basin in central India: Implication of climate change. *Journal of Water and Climate Change*, **2015**, 6, 615-627	2.3	20
46	A nonlinear data-driven model for synthetic generation of annual streamflows. *Hydrological Processes*, **2008**, 22, 1831-1845	3.3	20
45	Impact of time-scale of the calibration objective function on the performance of watershed models. *Hydrological Processes*, **2007**, 21, 3409-3419	3.3	19
44	Fuzzy model identification based on cluster estimation for reservoir inflow forecasting. *Hydrological Processes*, **2008**, 22, 827-841	3.3	19
43	Improving the crop productivity in rainfed areas with water harvesting structures and deficit irrigation strategies. *Journal of Hydrology*, **2020**, 586, 124818	6	18
42	Artificial Neural Network Approach for Mapping Contrasting Tillage Practices. *Remote Sensing*, **2010**, 2, 579-590	5	18
41	Spatial optimization of cropping pattern for sustainable food and biofuel production with minimal downstream pollution. *Journal of Environmental Management*, **2018**, 212, 198-209	7.9	17
40	Fuzzy inference system for site suitability evaluation of water harvesting structures in rainfed regions. *Agricultural Water Management*, **2019**, 218, 82-93	5.9	16
39	A hybrid linear-neural model for river flow forecasting. *Water Resources Research*, **2006**, 42,	5.4	16
38	Effect of spatial resolution on regionalization of hydrological model parameters. *Hydrological Processes*, **2012**, 26, 3499-3509	3.3	15
37	Improved higher lead time river flow forecasts using sequential neural network with error updating. *Journal of Hydrology and Hydromechanics*, **2014**, 62, 60-74	2.1	15
36	Sensitivity analysis and auto-calibration of ORYZA2000 using simulation-optimization framework. *Paddy and Water Environment*, **2013**, 11, 59-71	1.6	14

35	Linkage Between In-Stream Total Phosphorus and Land Cover in Chugoku District, Japan: An Ann Approach. *Journal of Hydrology and Hydromechanics*, **2012**, 60, 33-44	2.1	14
34	Terrestrial Macrofungal Diversity from the Tropical Dry Evergreen Biome of Southern India and Its Potential Role in Aerobiology. *PLoS ONE*, **2017**, 12, e0169333	3.7	13
33	Implementation of Solute Transport in the Vadose Zone into the "HYDRUS Package for MODFLOW". *Ground Water*, **2019**, 57, 392-408	2.4	12
32	Probabilistic and ensemble simulation approaches for input uncertainty quantification of artificial neural network hydrological models. *Hydrological Sciences Journal*, **2018**, 63, 101-113	3.5	11
31	Simulation□optimization framework for multi-season hybrid stochastic models. *Journal of Hydrology*, **2011**, 404, 209-225	6	11
30	Parameter estimation of SWAT and quantification of consequent confidence bands of model simulations. *Environmental Earth Sciences*, **2018**, 77, 1	2.9	11
29	Development of a hydrological model for simulation of runoff from catchments unbounded by ridge lines. *Journal of Hydrology*, **2017**, 551, 423-439	6	9
28	Soil Temperature Dynamics at Hillslope Scale□ield Observation and Machine Learning-Based Approach. *Water (Switzerland)*, **2020**, 12, 713	3	9
27	A review of the assessment of sustainable water use at continental-to-global scale. *Sustainable Water Resources Management*, **2020**, 6, 1	1.9	9
26	Adaptive multi-objective simulation□optimization framework for dynamic flood control operation in a river□eservoir system **2015**, 46, 893-911		9
25	River flow forecasting through nonlinear local approximation in a fuzzy model. *Neural Computing and Applications*, **2014**, 25, 1951-1965	4.8	9
24	An Improved Representation of Vegetative Filter Strips in SWAT. *Transactions of the ASABE*, **2018**, 61, 1017-1024	0.9	9
23	A method to reduce the computational requirement while assessing uncertainty of complex hydrological models. *Stochastic Environmental Research and Risk Assessment*, **2015**, 29, 847-859	3.5	8
22	Hydrologic design of water harvesting structures through simulation-optimization framework. *Journal of Hydrology*, **2018**, 563, 460-469	6	8
21	Ambient air quality of a less industrialized region of India (Kerala) during the COVID-19 lockdown. *Anthropocene*, **2020**, 32, 100270	3.9	6
20	Quantification of Prediction Uncertainty in Artificial Neural Network Models. *Studies in Computational Intelligence*, **2016**, 145-159	0.8	6
19	RAINFALL RUNOFF MODELLING USING NEURAL NETWORKS: STATE-OF-THE-ART AND FUTURE RESEARCH NEEDS. *ISH Journal of Hydraulic Engineering*, **2009**, 15, 52-74	1.5	6
18	Investigating Atrazine Concentrations in the Zwischenscholle Aquifer Using MODFLOW with the HYDRUS-1D Package and MT3DMS. *Water (Switzerland)*, **2020**, 12, 1019	3	5

17	Simulation-optimization framework for multi-site multi-season hybrid stochastic streamflow modeling. *Journal of Hydrology*, **2016**, 542, 506-531	6	5
16	Enhancement of Model Reliability by Integrating Prediction Interval Optimization into Hydrogeological Modeling. *Water Resources Management*, **2019**, 33, 229-243	3.7	5
15	Simulating Establishment Periods of Switchgrass and Miscanthus in the Soil and Water Assessment Tool (SWAT). *Transactions of the ASABE*, **2017**, 60, 1621-1632	0.9	4
14	A computationally efficient method for uncertainty analysis of SWAT model simulations. *Stochastic Environmental Research and Risk Assessment*, **2018**, 32, 1479-1492	3.5	3
13	RECENT ADVANCES IN KNOWLEDGE EXTRACTION FROM NEURAL NETWORK BASED HYDROLOGIC MODELS. *ISH Journal of Hydraulic Engineering*, **2009**, 15, 75-83	1.5	3
12	Implications of uncertainty in inflow forecasting on reservoir operation for irrigation. *Paddy and Water Environment*, **2021**, 19, 99-111	1.6	3
11	Uncertainty of hydrologic simulation, and its impact on the design and the effectiveness of water conservation structures. *Stochastic Environmental Research and Risk Assessment*, **2020**, 34, 973-991	3.5	2
10	Estimation of state-wide and monthly domestic water use in India from 1975 to 2015. *Urban Water Journal*, **2021**, 18, 421-432	2.3	2
9	A multistate first-order Markov model for modeling time distribution of extreme rainfall events. *Stochastic Environmental Research and Risk Assessment*, **2021**, 35, 1205-1221	3.5	2
8	Calibration of distributed hydrological models considering the heterogeneity of the parameters across the basin: a case study of SWAT model. *Environmental Earth Sciences*, **2021**, 80, 1	2.9	2
7	Discussion of Performance of Neural Networks in Daily Streamflow Forecasting by S. Birikundavyi, R. Labib, H. T. Trung, and J. Rousselle. *Journal of Hydrologic Engineering - ASCE*, **2004**, 9, 553-555	1.8	1
6	Impact of water conservation structures on the agricultural productivity in the context of climate change. *Water Resources Management*, **2022**, 36, 1627	3.7	1
5	Drought hotspot maps and regional drought characteristics curves: Development of a novel framework and its application to an Indian River basin undergoing climatic changes. *Science of the Total Environment*, **2021**, 151083	10.2	0
4	A decision support system for the identification of critical zones in a watershed to implement land management practices. *Stochastic Environmental Research and Risk Assessment*, **2021**, 35, 1649	3.5	0
3	Discussion of Comparison of three global optimization algorithms for calibration of the Xinanjiang model parameters by Dong-mei Xu, Wen-chuan Wang, Kwok-wing Chau, Chun-tian Cheng and Shou-yu Chen, 2013 Journal of Hydroinformatics15 (1), 174193, doi: 10.2166/hydro.2012.053. *Journal of Hydroinformatics*, **2014**, 16, 1461-1463	2.6	
2	Comment on Advances in ungauged streamflow prediction using artificial neural networks by Besaw et al. [Journal of Hydrology, 386 (2010) 27–37]. *Journal of Hydrology*, **2011**, 408, 314-315	6	
1	Uncertainty Analysis on Neural Network Based Hydrological Models Using Probabilistic Point Estimate Method. *Advances in Intelligent and Soft Computing*, **2012**, 377-384		