Ajay Kalra

List of Publications by Year
in descending order

99 papers	2,569 citations	172207 29 h-index	205818 48 g-index
99 all docs	99 docs citations	99 times ranked	1908 citing authors

#	Article	IF	Citations
1	Estimating soil moisture using remote sensing data: A machine learning approach. Advances in Water Resources, 2010, 33, 69-80.	1.7	345
2	Evaluating the effect of persistence on long-term trends and analyzing step changes in streamflows of the continental United States. Journal of Hydrology, 2014, 517, 36-53.	2.3	165
3	Increasing streamflow forecast lead time for snowmelt-driven catchment based on large-scale climate patterns. Advances in Water Resources, 2013, 53, 150-162.	1.7	96
4	Using oceanicâ€atmospheric oscillations for long lead time streamflow forecasting. Water Resources Research, 2009, 45, .	1.7	87
5	Changes in U.S. Streamflow and Western U.S. Snowpack. Journal of Hydrologic Engineering - ASCE, 2008, 13, 156-163.	0.8	84
6	Using largeâ€scale climatic patterns for improving long lead time streamflow forecasts for Gunnison and San Juan River Basins. Hydrological Processes, 2013, 27, 1543-1559.	1.1	81
7	Interconnections between oceanicâ€“atmospheric indices and variability in the U.S. streamflow. Journal of Hydrology, 2015, 525, 724-736.	2.3	79
8	Evaluating changes and estimating seasonal precipitation for the Colorado River Basin using a stochastic nonparametric disaggregation technique. Water Resources Research, 2011, 47, .	1.7	78
9	Estimating annual precipitation for the Colorado River Basin using oceanicâ€atmospheric oscillations. Water Resources Research, 2012, 48, .	1.7	74
10	Understanding the Effects of Climate Change on Urban Stormwater Infrastructures in the Las Vegas Valley. Hydrology, 2016, 3, 34.	1.3	68
11	Interconnections between oceanicâ€“atmospheric indices and variability in the U.S. streamflow. Journal of Hydrology, 2015, 525, 724-736.	2.3	68
12	Improving Streamflow Forecast Lead Time Using Oceanic-Atmospheric Oscillations for Kaidu River Basin, Xinjiang, China. Journal of Hydrologic Engineering - ASCE, 2013, 18, 1031-1040.	0.8	65
13	Pacific Ocean <scp>SST</scp> and <scp>Z₅₀₀</scp> climate variability and western U.S. seasonal streamflow. International Journal of Climatology, 2016, 36, 1515-1533.	1.5	62
14	Temperature and precipitation changes in the Midwestern United States: implications for water management. International Journal of Water Resources Development, 2017, 33, 1003-1019.	1.2	62
15	Potential of rooftop rainwater harvesting to meet outdoor water demand in arid regions. Journal of Arid Land, 2018, 10, 68-83.	0.9	62
16	Wavelet-Aided Analysis to Estimate Seasonal Variability and Dominant Periodicities in Temperature, Precipitation, and Streamflow in the Midwestern United States. Water Resources Management, 2016, 30, 4649-4665.	1.9	58
17	Wavelet analyses of western US streamflow with ENSO and PDO. Journal of Water and Climate Change, 2017, 8, 26-39.	1.2	56
18	Using Paleo Reconstructions to Improve Streamflow Forecast Lead Time in the Western <scp>U</scp>nited <scp>S</scp>tates. Journal of the American Water Resources Association, 2013, 49, 1351-1366.	1.0	55

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19	Identification of Streamflow Changes across the Continental United States Using Variable Record Lengths. Hydrology, 2016, 3, 24.	1.3	51
20	A dynamic model for exploring water-resource management scenarios in an inland arid area: Shanshan County, Northwestern China. Journal of Mountain Science, 2017, 14, 1039-1057.	0.8	48
21	Multi-Scale Correlation between the Western U.S. Snow Water Equivalent and ENSO/PDO Using Wavelet Analyses. Water Resources Management, 2017, 31, 2745-2759.	1.9	45
22	Effects of ENSO on Temperature, Precipitation, and Potential Evapotranspiration of North Indiaâ€™s Monsoon: An Analysis of Trend and Entropy. Water (Switzerland), 2019, 11, 189.	1.2	43
23	Modeling of GRACE-Derived Groundwater Information in the Colorado River Basin. Hydrology, 2019, 6, 19.	1.3	43
24	Hydro-climatological changes in the Colorado River Basin over a century. Hydrological Sciences Journal, 2017, 62, 2280-2296.	1.2	37
25	Evaluating Future Flood Scenarios Using CMIP5 Climate Projections. Water (Switzerland), 2018, 10, 1866.	1.2	35
26	Hydrologic responses to climate change using downscaled GCM data on a watershed scale. Journal of Water and Climate Change, 2019, 10, 63-77.	1.2	34
27	Long-range precipitation forecasts using paleoclimate reconstructions in the western United States. Journal of Mountain Science, 2016, 13, 614-632.	0.8	33
28	Coupling HEC-RAS and HEC-HMS in Precipitation Runoff Modelling and Evaluating Flood Plain Inundation Map. , 2017, , .		32
29	Estimating High-Resolution Groundwater Storage from GRACE: A Random Forest Approach. Environments - MDPI, 2019, 6, 63.	1.5	32
30	Spatiotemporal Variation in the Continental US Streamflow in Association with Large-Scale Climate Signals Across Multiple Spectral Bands. Water Resources Management, 2019, 33, 1947-1968.	1.9	32
31	Climatological Drought Forecasting Using Bias Corrected CMIP6 Climate Data: A Case Study for India. Forecasting, 2020, 2, 59-84.	1.6	32
32	Application of Machine Learning and Process-Based Models for Rainfall-Runoff Simulation in DuPage River Basin, Illinois. Hydrology, 2022, 9, 117.	1.3	24
33	Relationship between Ocean-Atmospheric Climate Variables and Regional Streamflow of the Conterminous United States. Hydrology, 2018, 5, 30.	1.3	23
34	Climatic variability of the Pacific and Atlantic Oceans and western US snowpack. International Journal of Climatology, 2018, 38, 1257-1269.	1.5	22
35	Understanding Suitability of MIKE 21 and HEC-RAS for 2D Floodplain Modeling. , 2020, , .		20
36	2D Unsteady Flow Routing and Flood Inundation Mapping for Lower Region of Brazos River Watershed. , 2017, , .		16

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37	Application of HEC-RAS to Study the Sediment Transport Characteristics of Maumee River in Ohio. , 2019, , .		16
38	CMIP5 Modelsâ€™ Ability to Capture Observed Trends under the Influence of Shifts and Persistence: An In-Depth Study on the Colorado River Basin. Journal of Applied Meteorology and Climatology, 2019, 58, 1677-1688.	0.6	16
39	Bringing statistical learning machines together for hydro-climatological predictions - Case study for Sacramento San joaquin River Basin, California. Journal of Hydrology: Regional Studies, 2020, 27, 100651.	1.0	16
40	Linkage between ENSO phases and western US snow water equivalent. Atmospheric Research, 2020, 236, 104827.	1.8	15
41	Future Changes in Water Supply and Demand for Las Vegas Valley: A System Dynamic Approach based on CMIP3 and CMIP5 Climate Projections. Hydrology, 2020, 7, 16.	1.3	15
42	Forecasting of Future Flooding and Risk Assessment under CMIP6 Climate Projection in Neuse River, North Carolina. Forecasting, 2020, 2, 323-345.	1.6	14
43	Conservation Reserve Program effects on floodplain land cover management. Journal of Environmental Management, 2018, 214, 305-314.	3.8	13
44	Rainfall-Runoff Simulation Using Climate Change Based Precipitation Prediction in HEC-HMS Model for Irwin Creek, Charlotte, North Carolina. , 2018, , .		12
45	Flood Frequency Analysis Using Generalized Extreme Value Distribution and Floodplain Mapping for Hurricane Harvey in Buffalo Bayou. , 2018, , .		12
46	Landâ€“Oceanâ€“Atmosphere Influences on Groundwater Variability in the South Atlanticâ€“Gulf Region. Hydrology, 2020, 7, 71.	1.3	12
47	Rainfall-Runoff Simulation in Cache River Basin, Illinois, Using HEC-HMS. , 2019, , .		10
48	Response of Climate Change on Urban Watersheds: A Case Study for Las Vegas, NV. , 2017, , .		9
49	Streamflow Forecasting Using Singular Value Decomposition and Support Vector Machine for the Upper Rio Grande River Basin. Journal of the American Water Resources Association, 2019, 55, 680-699.	1.0	9
50	Analyzing the Impacts of Serial Correlation and Shift on the Streamflow Variability within the Climate Regions of Contiguous United States. Hydrology, 2020, 7, 91.	1.3	9
51	Assessing the Effects of Climate Variability on Groundwater in Northern India. , 2020, , .		9
52	Regional Climatological Drought: An Assessment Using High-Resolution Data. Hydrology, 2020, 7, 33.	1.3	9
53	Flood Risk Assessment Using the Updated FEMA Floodplain Standard in the Ellicott City, Maryland, United States. , 2017, , .		8
54	Multi-Scale Correlation between the Western U.S. Snow Water Equivalent and ENSO/PDO Using Wavelet Analyses. , 2017, 31, 2745.		8

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55	A dynamic model for exploring water-resource management scenarios in an inland arid area: Shanshan County, Northwestern China. , 2017, 14, 1039.		7
56	Temperature and precipitation changes in the Midwestern United States: implications for water management. , 0, .		6
57	Assessing the Implication of Climate Change to Forecast Future Flood Using CMIP6 Climate Projections and HEC-RAS Modeling. Forecasting, 2022, 4, 582-603.	1.6	6
58	Improving Streamflow Reconstructions Using Oceanic-Atmospheric Climate Variability. , 2014, , .		5
59	Effects of Soil Data Resolution on the Simulated Stream Flow and Water Quality: Application of Watershed-Based SWAT Model. , 2018, , .		5
60	Flood Damage Reduction in Urban Areas with Use of Low Impact Development Designs. , 2018, , .		5
61	Hydro-climatological changes in the Colorado River Basin over a century. , 0, .		5
62	Insights into Reconstructing Sacramento River Flow Using Tree Rings and Pacific Ocean Climate Variability. , 2015, , .		4
63	Role of Low Impact Development in the Attenuation of Flood Flows in Urban Areas. , 2016, , .		4
64	Precipitation and Indian Ocean Climate Variabilityâ€"A Case Study on Pakistan. , 2017, , .		4
65	Using Wavelet to Analyze Periodicities in Hydrologic Variables. , 2017, , .		4
66	Reservoir Regulations of the Indus River Basin under Different Flow Conditions. , 2018, , .		4
67	Analyzing the Effects of Short-Term Persistence and Shift in Sea Level Records along the US Coast. Hydrology, 2021, 8, 17.	1.3	4
68	Potential of rooftop rainwater harvesting to meet outdoor water demand in arid regions. , 2018, 10, 68.		4
69	Modeling Floodplain Inundation for Monument Creek, Colorado. , 2016, , .		3
70	A Conceptualized Groundwater Flow Model Development for Integration with Surface Hydrology Model. , 2017, , .		3
71	Financial Management of a Hypothetical Water Network Using System Dynamics. , 2018, , .		3
72	Utilizing Civil Geo-HECRAS Capabilities for Floodplain Mapping of Colorado River in Texas during Hurricane Harvey. , 2018, , .		3

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73	Using SWAT to Simulate Streamflow in Trinity River Basin, Texas, USA. , 2019, , .		3
74	Implications of the 2015â€“2016 El NiÃ±o on Coastal Mississippi-Alabama Streamflow and Agriculture. Hydrology, 2019, 6, 96.	1.3	3
75	Assessment of Floodplain Inundation Mapping of Davenport City in Iowa Using Civil Geo-HECRAS. , 2021, , .		3
76	Wavelet-Aided Analysis to Estimate Seasonal Variability and Dominant Periodicities in Temperature, Precipitation, and Streamflow in the Midwestern United States. , 2016, 30, 4649.		3
77	Long-range precipitation forecasts using paleoclimate reconstructions in the western United States. , 2016, 13, 614.		3
78	Dynamic Simulation of Lake Mead Water Levels in Response to Climate Change and Varying Demands. , 2018, , .		2
79	Coupled 1D and 2D HEC-RAS Floodplain Modeling of Pecos River in New Mexico. , 2021, , .		2
80	Is Climate Change Evident in U. S. Streamflow?. , 2006, , .		2
81	Incorporating Pacific Ocean climate information to enhance the tree-ring-based streamflow reconstruction skill. Journal of Water and Climate Change, 2021, 12, 1891-1909.	1.2	2
82	Investigation of the Linkages between Oceanic Atmospheric Variability and Continental U.S. Streamflow. , 2014, , .		1
83	Patterns and Periodicities of the Continental U.S. Streamflow Change. , 2016, , .		1
84	Study of Lehman Creek Watershedâ€™s Hydrologic Response to Climate Change Using Downscaled CMIP5 Projections. , 2016, , .		1
85	Analyzing Long-Term Changes in Precipitation and Temperature in the Midwest United States. , 2016, , .		1
86	Ice-Cover and Jamming Effects on Inline Structures and Upstream Water Levels. , 2017, , .		1
87	Exploring CCHE2D and Its Sediment Modelling Capabilities. , 2018, , .		1
88	A Dynamic Simulation Approach to Analyze Hydro-Electric Energy Production under Variable Flow and Demand Conditions. , 2018, , .		1
89	Analyzing the Association between ENSO and Groundwater Rise in the South Atlantic-Gulf Region in the Southeastern United States. Hydrology, 2021, 8, 119.	1.3	1
90	Evaluating the Relationship between Western U.S. Streamflow and Pacific Ocean Climate Variability. , 2015, , .		0

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91	Spectral Analysis of Streamflow for Continental U.S.A.. , 2015, , .		0
92	Spatial and Temporal Evaluation of Hydroclimatic Variables in the Colorado River Basin. , 2015, , .		0
93	Exploring Water Management Strategies in an Inland Arid Area Using Dynamic Simulation Model. , 2015, , .		0
94	Long-Term Changes in the Continental United States Streamflow and Teleconnections with Oceanic-Atmospheric Indices. , 2016, , .		0
95	Improvements to SIUâ€™s Engineering Campus Parking and Walkways along Campus Lake. , 2016, , .		0
96	Multi-Scale Correlation Analyses between California Streamflow and ENSO/PDO. , 2017, , .		0
97	Incorporating Climate Variability in a Nonparametric Modeling Framework for Improving Hydrologic Predictions. , 2014, , .		0
98	Application of the HEC-HMS Model for Runoff Simulation of Big Muddy River, Illinois. , 2022, , .		0
99	Analyzing the Relationship between the Pacific Ocean SST and Streamflow of Two Drought Sensitive Watersheds within Northern California. , 2022, , .		0