

# Ashok Kumar Mishra

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

123  
papers

7,500  
citations

37  
h-index

85  
g-index

127  
ext. papers

9,150  
ext. citations

4.8  
avg, IF

7  
L-index

#	Paper	IF	Citations
123	A review of drought concepts. <i>Journal of Hydrology</i> , <b>2010</b> , 391, 202-216	6	2417
122	Drought modeling [A review]. <i>Journal of Hydrology</i> , <b>2011</b> , 403, 157-175	6	526
121	Drought forecasting using stochastic models. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2005</b> , 19, 326-339	3.5	281
120	Drought forecasting using feed-forward recursive neural network. <i>Ecological Modelling</i> , <b>2006</b> , 198, 127-138	13.8	223
119	Developments in hydrometric network design: A review. <i>Reviews of Geophysics</i> , <b>2009</b> , 47,	23.1	194
118	Climate Change and Drought: a Perspective on Drought Indices. <i>Current Climate Change Reports</i> , <b>2018</b> , 4, 145-163	9	184
117	Drought Forecasting Using a Hybrid Stochastic and Neural Network Model. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2007</b> , 12, 626-638	1.8	169
116	Climate change will affect global water availability through compounding changes in seasonal precipitation and evaporation. <i>Nature Communications</i> , <b>2020</b> , 11, 3044	17.4	167
115	Drought characterization: a probabilistic approach. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2009</b> , 23, 41-55	3.5	146
114	Multivariate drought index: An information theory based approach for integrated drought assessment. <i>Journal of Hydrology</i> , <b>2015</b> , 526, 164-182	6	129
113	An entropy-based investigation into the variability of precipitation. <i>Journal of Hydrology</i> , <b>2009</b> , 370, 139-154	15.4	121
112	Drought Analysis Using Copulas. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2013</b> , 18, 797-808	1.8	107
111	Drought monitoring with soil moisture active passive (SMAP) measurements. <i>Journal of Hydrology</i> , <b>2017</b> , 552, 620-632	6	97
110	Spatial and temporal drought analysis in the Kansabati river basin, India. <i>International Journal of River Basin Management</i> , <b>2005</b> , 3, 31-41	1.7	93
109	Water security assessment using blue and green water footprint concepts. <i>Journal of Hydrology</i> , <b>2016</b> , 542, 589-602	6	92
108	Long Lead Time Drought Forecasting Using a Wavelet and Fuzzy Logic Combination Model: A Case Study in Texas. <i>Journal of Hydrometeorology</i> , <b>2012</b> , 13, 284-297	3.7	92
107	A review of remote sensing applications in agriculture for food security: Crop growth and yield, irrigation, and crop losses. <i>Journal of Hydrology</i> , <b>2020</b> , 586, 124905	6	91

106	Hydrometric network evaluation for Canadian watersheds. <i>Journal of Hydrology</i> , <b>2010</b> , 380, 420-437	6	82
105	Evaluation of satellite rainfall climatology using CMORPH, PERSIANN-CDR, PERSIANN, TRMM, MSWEP over Iran. <i>International Journal of Climatology</i> , <b>2017</b> , 37, 4896-4914	3.5	80
104	Entropy theory-based criterion for hydrometric network evaluation and design: Maximum information minimum redundancy. <i>Water Resources Research</i> , <b>2012</b> , 48,	5.4	71
103	A bivariate mixed distribution with a heavy-tailed component and its application to single-site daily rainfall simulation. <i>Water Resources Research</i> , <b>2013</b> , 49, 767-789	5.4	71
102	Low frequency drought variability associated with climate indices. <i>Journal of Hydrology</i> , <b>2009</b> , 364, 152-162		71
101	Impact of Human Intervention and Climate Change on Natural Flow Regime. <i>Water Resources Management</i> , <b>2016</b> , 30, 685-699	3.7	69
100	Anatomy of a local-scale drought: Application of assimilated remote sensing products, crop model, and statistical methods to an agricultural drought study. <i>Journal of Hydrology</i> , <b>2015</b> , 526, 15-29	6	67
99	Long-term spatio-temporal drought variability in Turkey. <i>Journal of Hydrology</i> , <b>2017</b> , 552, 779-792	6	66
98	A copula-based precipitation forecasting model: Investigating the interdecadal modulation of ENSO's impacts on monthly precipitation. <i>Water Resources Research</i> , <b>2014</b> , 50, 580-600	5.4	62
97	Changes in extreme precipitation in Texas. <i>Journal of Geophysical Research</i> , <b>2010</b> , 115,		62
96	Potential of Intelligent Transportation Systems in Mitigating Adverse Weather Impacts on Road Mobility: A Review. <i>IEEE Transactions on Intelligent Transportation Systems</i> , <b>2015</b> , 16, 1107-1119	6.1	59
95	Drought characterization over India under projected climate scenario. <i>International Journal of Climatology</i> , <b>2019</b> , 39, 1889-1911	3.5	56
94	A review of remote sensing applications for water security: Quantity, quality, and extremes. <i>Journal of Hydrology</i> , <b>2020</b> , 585, 124826	6	55
93	Compound natural and human disasters: Managing drought and COVID-19 to sustain global agriculture and food sectors. <i>Science of the Total Environment</i> , <b>2021</b> , 754, 142210	10.2	54
92	Spatial variability of climate change impacts on yield of rice and wheat in the Indian Ganga Basin. <i>Science of the Total Environment</i> , <b>2013</b> , 468-469 Suppl, S132-8	10.2	52
91	Integrated drought causality, hazard, and vulnerability assessment for future socioeconomic scenarios: An information theory perspective. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2015</b> , 120, 6346-6378	4.4	52
90	Review of complex networks application in hydroclimatic extremes with an implementation to characterize spatio-temporal drought propagation in continental USA. <i>Journal of Hydrology</i> , <b>2017</b> , 555, 600-620	6	46
89	Multi-scale evaluation of six high-resolution satellite monthly rainfall estimates over a humid region in China with dense rain gauges. <i>International Journal of Remote Sensing</i> , <b>2014</b> , 35, 1272-1294	3.1	45

88	Simulation of the entire range of daily precipitation using a hybrid probability distribution. <i>Water Resources Research</i> , <b>2012</b> , 48,	5.4	45
87	Quantifying Climate and Catchment Control on Hydrological Drought in the Continental United States. <i>Water Resources Research</i> , <b>2020</b> , 56, e2018WR024620	5.4	37
86	Estimating Palmer Drought Severity Index using a wavelet fuzzy logic model based on meteorological variables. <i>International Journal of Climatology</i> , <b>2011</b> , 31, 2021-2032	3.5	36
85	Increase in Compound Drought and Heatwaves in a Warming World. <i>Geophysical Research Letters</i> , <b>2021</b> , 48,	4.9	36
84	Hydrological Drought in the Anthropocene: Impacts of Local Water Extraction and Reservoir Regulation in the U.S.. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2017</b> , 122, 11,313-11,328	4.4	35
83	Regionalization of Drought Characteristics Using an Entropy Approach. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2013</b> , 18, 870-887	1.8	33
82	Evaluation of remotely sensed precipitation estimates using PERSIANN-CDR and MSWEP for spatio-temporal drought assessment over Iran. <i>Journal of Hydrology</i> , <b>2019</b> , 579, 124189	6	31
81	Water, Environment, Energy, and Population Growth: Implications for Water Sustainability under Climate Change. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2014</b> , 19, 667-673	1.8	31
80	Uncertainties of gridded precipitation observations in characterizing spatio-temporal drought and wetness over Vietnam. <i>International Journal of Climatology</i> , <b>2018</b> , 38, 2067-2081	3.5	30
79	Assessing future changes in seasonal climatic extremes in the Ganges river basin using an ensemble of regional climate models. <i>Climatic Change</i> , <b>2014</b> , 123, 273-286	4.5	30
78	Evaluating uncertainties in multi-layer soil moisture estimation with support vector machines and ensemble Kalman filtering. <i>Journal of Hydrology</i> , <b>2016</b> , 538, 243-255	6	30
77	Performance of SMAP, AMSR-E and LAI for weekly agricultural drought forecasting over continental United States. <i>Journal of Hydrology</i> , <b>2017</b> , 553, 88-104	6	29
76	Comparison of BIAS correction techniques for GPCC rainfall data in semi-arid climate. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2016</b> , 30, 1659-1675	3.5	28
75	Potential influence of climate and anthropogenic variables on water security using blue and green water scarcity, Falkenmark index, and freshwater provision indicator. <i>Journal of Environmental Management</i> , <b>2018</b> , 228, 346-362	7.9	27
74	Scaling characteristics of precipitation data in conjunction with wavelet analysis. <i>Journal of Hydrology</i> , <b>2010</b> , 395, 279-288	6	25
73	Wet and dry spell analysis using copulas. <i>International Journal of Climatology</i> , <b>2016</b> , 36, 476-491	3.5	25
72	Changes in temporal variability of precipitation over land due to anthropogenic forcings. <i>Environmental Research Letters</i> , <b>2017</b> , 12, 024009	6.2	24
71	Variability in Canadian Seasonal Streamflow Information and Its Implication for Hydrometric Network Design. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2014</b> , 19, 05014003	1.8	24

70	Performance of AMSR_E soil moisture data assimilation in CLM4.5 model for monitoring hydrologic fluxes at global scale. <i>Journal of Hydrology</i> , <b>2017</b> , 547, 67-79	6	23
69	Nonstationary frequency analysis of the recent extreme precipitation events in the United States. <i>Journal of Hydrology</i> , <b>2019</b> , 575, 999-1010	6	23
68	Investigating drought in Apulia region, Italy using SPI and RDI. <i>Theoretical and Applied Climatology</i> , <b>2019</b> , 137, 383-397	3	23
67	Hydrologic Drought Atlas for Texas. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2015</b> , 20, 05014023	1.8	22
66	Compound Drought and Heatwaves at a Global Scale: The Role of Natural Climate Variability-Associated Synoptic Patterns and Land-Surface Energy Budget Anomalies. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2020</b> , 125, e2019JD031943	4.4	22
65	Evaluation of multiple stochastic rainfall generators in diverse climatic regions. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2018</b> , 32, 1337-1353	3.5	22
64	Wet and dry spell analysis of Global Climate Model-generated precipitation using power laws and wavelet transforms. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2011</b> , 25, 517-535	3.5	22
63	Trend and persistence of precipitation under climate change scenarios for Kansabati basin, India. <i>Hydrological Processes</i> , <b>2009</b> , 23, 2345-2357	3.3	22
62	Multiscale hydrological drought analysis: Role of climate, catchment and morphological variables and associated thresholds. <i>Journal of Hydrology</i> , <b>2020</b> , 582, 124533	6	22
61	Water Security Assessment for the Contiguous United States Using Water Footprint Concepts. <i>Geophysical Research Letters</i> , <b>2020</b> , 47, e2020GL087061	4.9	20
60	Three-parameter-based streamflow elasticity model: application to MOPEX basins in the USA at annual and seasonal scales. <i>Hydrology and Earth System Sciences</i> , <b>2016</b> , 20, 2545-2556	5.5	20
59	Extraction of information content from stochastic disaggregation and bias corrected downscaled precipitation variables for crop simulation. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2013</b> , 27, 449-457	3.5	19
58	Impact of land uses, drought, flood, wildfire, and cascading events on water quality and microbial communities: A review and analysis. <i>Journal of Hydrology</i> , <b>2021</b> , 596, 125707	6	18
57	Seasonal streamflow extremes in Texas river basins: Uncertainty, trends, and teleconnections. <i>Journal of Geophysical Research</i> , <b>2011</b> , 116,		17
56	Association between Uncertainties in Meteorological Variables and Water-Resources Planning for the State of Texas. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2011</b> , 16, 984-999	1.8	17
55	Drought processes, modeling, and mitigation. <i>Journal of Hydrology</i> , <b>2015</b> , 526, 1-2	6	16
54	Water scarcity-risk assessment in data-scarce river basins under decadal climate change using a hydrological modelling approach. <i>Journal of Hydrology</i> , <b>2020</b> , 590, 125260	6	16
53	Monthly river flow simulation with a joint conditional density estimation network. <i>Water Resources Research</i> , <b>2013</b> , 49, 3229-3242	5.4	16

52	Sensitivity of drought resilience-vulnerability- exposure to hydrologic ratios in contiguous United States. <i>Journal of Hydrology</i> , <b>2018</b> , 564, 294-306	6	15
51	Water Deficit Duration and Severity Analysis Based on Runoff Derived from Noah Land Surface Model. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2013</b> , 18, 817-833	1.8	15
50	Sub-basin scale characterization of climate change vulnerability, impacts and adaptation in an Indian River basin. <i>Regional Environmental Change</i> , <b>2013</b> , 13, 1087-1098	4.3	15
49	Urban and peri-urban precipitation and air temperature trends in mega cities of the world using multiple trend analysis methods. <i>Theoretical and Applied Climatology</i> , <b>2018</b> , 132, 403-418	3	14
48	Impact of global warming and climate change on social development. <i>Journal of Comparative Social Welfare</i> , <b>2010</b> , 26, 239-260		12
47	A Holistic View of Water Management Impacts on Future Droughts: A Global Multimodel Analysis. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2018</b> , 123, 5947-5972	4.4	12
46	Teleconnection between low flows and large-scale climate indices in Texas River basins. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2018</b> , 32, 2337-2350	3.5	11
45	Integrated Assessment of no-Regret Climate Change Adaptation Options for Reservoir Catchment and Command Areas. <i>Water Resources Management</i> , <b>2016</b> , 30, 1001-1018	3.7	11
44	Seasonal and spatial variations in the scaling and correlation structure of streamflow data. <i>Hydrological Processes</i> , <b>2013</b> , 27, 1681-1690	3.3	11
43	Understanding changes in water availability in the Rio Grande/RB Bravo del Norte basin under the influence of large-scale circulation indices using the Noah land surface model. <i>Journal of Geophysical Research</i> , <b>2012</b> , 117, n/a-n/a		10
42	Climate Change and Its Impact on Water Resources <b>2014</b> , 525-569		10
41	Determinants of household use of wetland resources in West Bengal, India. <i>Wetlands Ecology and Management</i> , <b>2015</b> , 23, 803-816	2.1	9
40	Quantifying climate, streamflow, and watershed control on water quality across Southeastern US watersheds. <i>Science of the Total Environment</i> , <b>2020</b> , 739, 139945	10.2	9
39	A novel bias correction framework of TMPA 3B42 daily precipitation data using similarity matrix/homogeneous conditions. <i>Science of the Total Environment</i> , <b>2019</b> , 694, 133680	10.2	9
38	Simulating Hydrological Drought Properties at Different Spatial Units in the United States Based on Wavelet Bayesian Regression Approach. <i>Earth Interactions</i> , <b>2012</b> , 16, 1-23	1.5	9
37	Evaluation of high-resolution satellite products for streamflow and water quality assessment in a Southeastern US watershed. <i>Journal of Hydrology: Regional Studies</i> , <b>2020</b> , 27, 100660	3.6	9
36	Sensitivity of global major crop yields to climate variables: A non-parametric elasticity analysis. <i>Science of the Total Environment</i> , <b>2020</b> , 748, 141431	10.2	9
35	Multi-layer high-resolution soil moisture estimation using machine learning over the United States. <i>Remote Sensing of Environment</i> , <b>2021</b> , 266, 112706	13.2	9

34	Spatiotemporal Characteristics and Propagation of Summer Extreme Precipitation Events Over United States: A Complex Network Analysis. <i>Geophysical Research Letters</i> , <b>2020</b> , 47, e2020GL088185	4.9	8
33	Combining climatological and participatory approaches for assessing changes in extreme climatic indices at regional scale. <i>Climatic Change</i> , <b>2013</b> , 119, 603-615	4.5	8
32	A brief review of assessment approaches that support evaluation of climate change adaptation options in the water sector. <i>Water Policy</i> , <b>2014</b> , 16, 959-972	1.6	8
31	Spatial and temporal variability of Standardized Precipitation Index over Indochina Peninsula. <i>Cuadernos De Investigacion Geografica</i> , <b>2016</b> , 42, 221	2.5	8
30	Evaluation of Satellite and Gauge-Based Precipitation Products through Hydrologic Simulation in Tigris River Basin under Data-Scarce Environment. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2019</b> , 24, 05018033	1.8	8
29	Evaluation of soil moisture-precipitation feedback at different time scales over Asia. <i>International Journal of Climatology</i> , <b>2017</b> , 37, 3619-3629	3.5	7
28	Development of Climate Data Bias Corrector (CDBC) Tool and Its Application over the Agro-Ecological Zones of India. <i>Water (Switzerland)</i> , <b>2019</b> , 11, 1102	3	7
27	Information Entropy Suggests Stronger Nonlinear Associations between Hydro-Meteorological Variables and ENSO. <i>Entropy</i> , <b>2018</b> , 20,	2.8	7
26	Evaluation of hydrological effect of stakeholder prioritized climate change adaptation options based on multi-model regional climate projections. <i>Climatic Change</i> , <b>2014</b> , 123, 225-239	4.5	6
25	Anthropogenic Warming and Population Growth May Double US Heat Stress by the Late 21st Century. <i>Earth's Future</i> , <b>2021</b> , 9, e2020EF001886	7.9	6
24	Complex Networks Reveal Heatwave Patterns and Propagations Over the USA. <i>Geophysical Research Letters</i> , <b>2021</b> , 48, e2020GL090411	4.9	6
23	Evaluation of hydroclimatic variables for maize yield estimation using crop model and remotely sensed data assimilation. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2019</b> , 33, 1283-1295	3.5	5
22	Scaling Characteristics of Precipitation Data over Texas. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2011</b> , 16, 1009-1016	1.8	5
21	Quantifying yield gap for rice cropping systems in Lower Gangetic Plains. <i>Paddy and Water Environment</i> , <b>2018</b> , 16, 601-615	1.6	5
20	Support vector machine and data assimilation framework for Groundwater Level Forecasting using GRACE satellite data. <i>Journal of Hydrology</i> , <b>2021</b> , 603, 126929	6	5
19	Runoff sensitivity over Asia: Role of climate variables and initial soil conditions. <i>Journal of Geophysical Research D: Atmospheres</i> , <b>2017</b> , 122, 2218-2238	4.4	4
18	Meteorological and Hydrological Drought Analysis and Its Impact on Water Quality and Stream Integrity. <i>Sustainability</i> , <b>2021</b> , 13, 8175	3.6	4
17	Dynamics of virtual water networks: Role of national socio-economic indicators across the world. <i>Journal of Hydrology</i> , <b>2020</b> , 589, 125171	6	3



16	Explaining water security indicators using hydrologic and agricultural systems models. <i>Journal of Hydrology</i> , <b>2022</b> , 607, 127463	6	3
15	Trend analysis and change point detection of annual and seasonal horizontal visibility trends in Saudi Arabia. <i>Theoretical and Applied Climatology</i> , <b>2021</b> , 144, 127-146	3	3
14	Stream water quality prediction using boosted regression tree and random forest models. <i>Stochastic Environmental Research and Risk Assessment</i> ,1	3.5	2
13	Estimation of nitrogen status and yield of rice crop using unmanned aerial vehicle equipped with multispectral camera. <i>Journal of Applied Remote Sensing</i> , <b>2021</b> , 15,	1.4	2
12	Hydrus-1D for Simulating Potassium Transport in Flooded Paddy Soils. <i>Communications in Soil Science and Plant Analysis</i> ,1-18	1.5	2
11	Cascading effect of meteorological forcing on extreme precipitation events: Role of atmospheric rivers in southeastern US. <i>Journal of Hydrology</i> , <b>2021</b> , 601, 126641	6	2
10	Quantifying Spatial Drought Propagation Potential in North America Using Complex Network Theory. <i>Water Resources Research</i> , <b>2022</b> , 58,	5.4	2
9	A Multivariate Flash Drought Indicator for Identifying Global Hotspots and Associated Climate Controls. <i>Geophysical Research Letters</i> ,	4.9	1
8	Compound impact of drought and COVID-19 on agriculture yield in the USA. <i>Science of the Total Environment</i> , <b>2022</b> , 807, 150801	10.2	1
7	Performance of multisite stochastic precipitation models for a tropical monsoon region. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2020</b> , 34, 2159-2177	3.5	1
6	Trend and change point detection in mean annual and seasonal maximum temperatures over Saudi Arabia. <i>Arabian Journal of Geosciences</i> , <b>2021</b> , 14, 1	1.8	1
5	Evaluation of land-use, climate change, and low-impact development practices on urban flooding. <i>Hydrological Sciences Journal</i> , <b>2021</b> , 66, 1729-1742	3.5	1
4	Relative effect of anthropogenic warming and natural climate variability to changes in Compound drought and heatwaves. <i>Journal of Hydrology</i> , <b>2022</b> , 605, 127396	6	0
3	Rainfall and droughts <b>2022</b> , 451-474		
2	Influence of Hydrologic Information on Shallow Foundation Design and Analysis in Arid Climates. <i>Sustainable Civil Infrastructures</i> , <b>2018</b> , 139-159	0.2	
1	Property Rights and Institutional Arrangements of a Man-Made Wetland in Dryland Area of West Bengal, India. <i>Wetlands</i> , <b>2020</b> , 40, 2553-2560	1.7	