

Ashok Kumar Mishra

List of Publications by Year in descending order

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Version: 2024-02-01

126
papers

11,363
citations

50276

46
h-index

30922

102
g-index

127
all docs

127
docs citations

127
times ranked

8662
citing authors

#	ARTICLE	IF	CITATIONS
1	Compound impact of drought and COVID-19 on agriculture yield in the USA. <i>Science of the Total Environment</i> , 2022, 807, 150801.	8.0	15
2	A Multivariate Flash Drought Indicator for Identifying Global Hotspots and Associated Climate Controls. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	49
3	Relative effect of anthropogenic warming and natural climate variability to changes in Compound drought and heatwaves. <i>Journal of Hydrology</i> , 2022, 605, 127396.	5.4	28
4	Explaining water security indicators using hydrologic and agricultural systems models. <i>Journal of Hydrology</i> , 2022, 607, 127463.	5.4	18
5	Stream water quality prediction using boosted regression tree and random forest models. <i>Stochastic Environmental Research and Risk Assessment</i> , 2022, 36, 2661-2680.	4.0	44
6	Rainfall and droughts. , 2022, , 451-474.		1
7	Probabilistic drought forecasting using copula and satellite rainfall based <scp>PERSIANNâ€œCDR</scp> and <scp>MSWEP datasets</scp>. <i>International Journal of Climatology</i> , 2022, 42, 6441-6458.	3.5	8
8	Quantifying Spatial Drought Propagation Potential in North America Using Complex Network Theory. <i>Water Resources Research</i> , 2022, 58, .	4.2	11
9	An Overview of Flood Concepts, Challenges, and Future Directions. <i>Journal of Hydrologic Engineering - ASCE</i> , 2022, 27, .	1.9	36
10	Global Flash Drought Analysis: Uncertainties From Indicators and Datasets. <i>Earth's Future</i> , 2022, 10, .	6.3	11
11	Compound natural and human disasters: Managing drought and COVID-19 to sustain global agriculture and food sectors. <i>Science of the Total Environment</i> , 2021, 754, 142210.	8.0	101
12	Increase in Compound Drought and Heatwaves in a Warming World. <i>Geophysical Research Letters</i> , 2021, 48, .	4.0	134
13	Complex Networks Reveal Heatwave Patterns and Propagations Over the USA. <i>Geophysical Research Letters</i> , 2021, 48, e2020GL090411.	4.0	20
14	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> , 2021, 596, 125707.	5.4	70
15	Trend analysis and change point detection of annual and seasonal horizontal visibility trends in Saudi Arabia. <i>Theoretical and Applied Climatology</i> , 2021, 144, 127-146.	2.8	14
16	Anthropogenic Warming and Population Growth May Double US Heat Stress by the Late 21st Century. <i>Earth's Future</i> , 2021, 9, e2020EF001886.	6.3	16
17	Trend and change point detection in mean annual and seasonal maximum temperatures over Saudi Arabia. <i>Arabian Journal of Geosciences</i> , 2021, 14, 1.	1.3	1
18	Meteorological and Hydrological Drought Analysis and Its Impact on Water Quality and Stream Integrity. <i>Sustainability</i> , 2021, 13, 8175.	3.2	12

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19	Estimation of nitrogen status and yield of rice crop using unmanned aerial vehicle equipped with multispectral camera. <i>Journal of Applied Remote Sensing</i> , 2021, 15, .	1.3	4
20	Hydrus-1D for Simulating Potassium Transport in Flooded Paddy Soils. <i>Communications in Soil Science and Plant Analysis</i> , 2021, 52, 2803-2820.	1.4	5
21	Evaluation of land-use, climate change, and low-impact development practices on urban flooding. <i>Hydrological Sciences Journal</i> , 2021, 66, 1729-1742.	2.6	10
22	Cascading effect of meteorological forcing on extreme precipitation events: Role of atmospheric rivers in southeastern US. <i>Journal of Hydrology</i> , 2021, 601, 126641.	5.4	12
23	Support vector machine and data assimilation framework for Groundwater Level Forecasting using GRACE satellite data. <i>Journal of Hydrology</i> , 2021, 603, 126929.	5.4	28
24	Multi-layer high-resolution soil moisture estimation using machine learning over the United States. <i>Remote Sensing of Environment</i> , 2021, 266, 112706.	11.0	62
25	Evaluation of high-resolution satellite products for streamflow and water quality assessment in a Southeastern US watershed. <i>Journal of Hydrology: Regional Studies</i> , 2020, 27, 100660.	2.4	12
26	Multiscale hydrological drought analysis: Role of climate, catchment and morphological variables and associated thresholds. <i>Journal of Hydrology</i> , 2020, 582, 124533.	5.4	37
27	Quantifying Climate and Catchment Control on Hydrological Drought in the Continental United States. <i>Water Resources Research</i> , 2020, 56, e2018WR024620.	4.2	90
28	Sensitivity of global major crop yields to climate variables: A non-parametric elasticity analysis. <i>Science of the Total Environment</i> , 2020, 748, 141431.	8.0	25
29	Performance of multisite stochastic precipitation models for a tropical monsoon region. <i>Stochastic Environmental Research and Risk Assessment</i> , 2020, 34, 2159-2177.	4.0	1
30	Property Rights and Institutional Arrangements of a Man-Made Wetland in Dryland Area of West Bengal, India. <i>Wetlands</i> , 2020, 40, 2553-2560.	1.5	1
31	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> , 2020, 125, e2019JD031943.	3.3	58
32	Dynamics of virtual water networks: Role of national socio-economic indicators across the world. <i>Journal of Hydrology</i> , 2020, 589, 125171.	5.4	10
33	Quantifying climate, streamflow, and watershed control on water quality across Southeastern US watersheds. <i>Science of the Total Environment</i> , 2020, 739, 139945.	8.0	26
34	Water Security Assessment for the Contiguous United States Using Water Footprint Concepts. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087061.	4.0	31
35	A review of remote sensing applications for water security: Quantity, quality, and extremes. <i>Journal of Hydrology</i> , 2020, 585, 124826.	5.4	148
36	Spatiotemporal Characteristics and Propagation of Summer Extreme Precipitation Events Over United States: A Complex Network Analysis. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088185.	4.0	26

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37	Climate change will affect global water availability through compounding changes in seasonal precipitation and evaporation. <i>Nature Communications</i> , 2020, 11, 3044.	12.8	467
38	Water scarcity-risk assessment in data-scarce river basins under decadal climate change using a hydrological modelling approach. <i>Journal of Hydrology</i> , 2020, 590, 125260.	5.4	44
39	A review of remote sensing applications in agriculture for food security: Crop growth and yield, irrigation, and crop losses. <i>Journal of Hydrology</i> , 2020, 586, 124905.	5.4	227
40	Investigating drought in Apulia region, Italy using SPI and RDI. <i>Theoretical and Applied Climatology</i> , 2019, 137, 383-397.	2.8	32
41	A novel bias correction framework of TMPA 3B42 daily precipitation data using similarity matrix/homogeneous conditions. <i>Science of the Total Environment</i> , 2019, 694, 133680.	8.0	20
42	Evaluation of hydroclimatic variables for maize yield estimation using crop model and remotely sensed data assimilation. <i>Stochastic Environmental Research and Risk Assessment</i> , 2019, 33, 1283-1295.	4.0	11
43	Evaluation of remotely sensed precipitation estimates using PERSIANN-CDR and MSWEP for spatio-temporal drought assessment over Iran. <i>Journal of Hydrology</i> , 2019, 579, 124189.	5.4	51
44	Development of Climate Data Bias Corrector (CDBC) Tool and Its Application over the Agro-Ecological Zones of India. <i>Water (Switzerland)</i> , 2019, 11, 1102.	2.7	18
45	Nonstationary frequency analysis of the recent extreme precipitation events in the United States. <i>Journal of Hydrology</i> , 2019, 575, 999-1010.	5.4	62
46	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> , 2019, 24, 05018033.	1.9	10
47	Drought characterization over India under projected climate scenario. <i>International Journal of Climatology</i> , 2019, 39, 1889-1911.	3.5	94
48	Climate Change and Drought: a Perspective on Drought Indices. <i>Current Climate Change Reports</i> , 2018, 4, 145-163.	8.6	381
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> , 2018, 132, 403-418.	2.8	21
50	Uncertainties of gridded precipitation observations in characterizing spatio-temporal drought and wetness over Vietnam. <i>International Journal of Climatology</i> , 2018, 38, 2067-2081.	3.5	47
51	Evaluation of multiple stochastic rainfall generators in diverse climatic regions. <i>Stochastic Environmental Research and Risk Assessment</i> , 2018, 32, 1337-1353.	4.0	25
52	Teleconnection between low flows and large-scale climate indices in Texas River basins. <i>Stochastic Environmental Research and Risk Assessment</i> , 2018, 32, 2337-2350.	4.0	15
53	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> , 2018, 228, 346-362.	7.8	60
54	A Holistic View of Water Management Impacts on Future Droughts: A Global Multimodel Analysis. <i>Journal of Geophysical Research D: Atmospheres</i> , 2018, 123, 5947-5972.	3.3	25

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55	Quantifying yield gap for rice cropping systems in Lower Gangetic Plains. Paddy and Water Environment, 2018, 16, 601-615.	1.8	7
56	Sensitivity of drought resilience-vulnerability- exposure to hydrologic ratios in contiguous United States. Journal of Hydrology, 2018, 564, 294-306.	5.4	24
57	Information Entropy Suggests Stronger Nonlinear Associations between Hydro-Meteorological Variables and ENSO. Entropy, 2018, 20, 38.	2.2	15
58	Evaluation of satellite rainfall climatology using <scp>CMORPH</scp>, <scp>PERSIANNâ€œCDR</scp>, <scp>PERSIANN</scp>, <scp>TRMM</scp>, <scp>MSWEP</scp> over Iran. International Journal of Climatology, 2017, 37, 4896-4914.	3.5	133
59	Performance of AMSR_E soil moisture data assimilation in CLM4.5 model for monitoring hydrologic fluxes at global scale. Journal of Hydrology, 2017, 547, 67-79.	5.4	31
60	Evaluation of soil moistureâ€œprecipitation feedback at different time scales over Asia. International Journal of Climatology, 2017, 37, 3619-3629.	3.5	14
61	Changes in temporal variability of precipitation over land due to anthropogenic forcings. Environmental Research Letters, 2017, 12, 024009.	5.2	33
62	Review of complex networks application in hydroclimatic extremes with an implementation to characterize spatio-temporal drought propagation in continental USA. Journal of Hydrology, 2017, 555, 600-620.	5.4	74
63	Drought monitoring with soil moisture active passive (SMAP) measurements. Journal of Hydrology, 2017, 552, 620-632.	5.4	132
64	Long-term spatio-temporal drought variability in Turkey. Journal of Hydrology, 2017, 552, 779-792.	5.4	93
65	Performance of SMAP, AMSR-E and LAI for weekly agricultural drought forecasting over continental United States. Journal of Hydrology, 2017, 553, 88-104.	5.4	36
66	Runoff sensitivity over Asia: Role of climate variables and initial soil conditions. Journal of Geophysical Research D: Atmospheres, 2017, 122, 2218-2238.	3.3	4
67	Hydrological Drought in the Anthropocene: Impacts of Local Water Extraction and Reservoir Regulation in the U.S.. Journal of Geophysical Research D: Atmospheres, 2017, 122, 11,313.	3.3	58
68	Three-parameter-based streamflow elasticity model: application to MOPEX basins in the USA at annual and seasonal scales. Hydrology and Earth System Sciences, 2016, 20, 2545-2556.	4.9	26
69	Wet and dry spell analysis using copulas. International Journal of Climatology, 2016, 36, 476-491.	3.5	31
70	Evaluating uncertainties in multi-layer soil moisture estimation with support vector machines and ensemble Kalman filtering. Journal of Hydrology, 2016, 538, 243-255.	5.4	39
71	Comparison of BIAS correction techniques for GPCP rainfall data in semi-arid climate. Stochastic Environmental Research and Risk Assessment, 2016, 30, 1659-1675.	4.0	40
72	Water security assessment using blue and green water footprint concepts. Journal of Hydrology, 2016, 542, 589-602.	5.4	143

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73	Integrated Assessment of no-Regret Climate Change Adaptation Options for Reservoir Catchment and Command Areas. <i>Water Resources Management</i> , 2016, 30, 1001-1018.	3.9	13
74	Impact of Human Intervention and Climate Change on Natural Flow Regime. <i>Water Resources Management</i> , 2016, 30, 685-699.	3.9	100
75	Spatial and temporal variability of Standardized Precipitation Index over Indochina Peninsula. <i>Cuadernos De Investigacion Geografica</i> , 2016, 42, 221-232.	1.1	12
76	Integrated drought causality, hazard, and vulnerability assessment for future socioeconomic scenarios: An information theory perspective. <i>Journal of Geophysical Research D: Atmospheres</i> , 2015, 120, 6346-6378.	3.3	66
77	Multivariate drought index: An information theory based approach for integrated drought assessment. <i>Journal of Hydrology</i> , 2015, 526, 164-182.	5.4	173
78	Drought processes, modeling, and mitigation. <i>Journal of Hydrology</i> , 2015, 526, 1-2.	5.4	24
79	Determinants of household use of wetland resources in West Bengal, India. <i>Wetlands Ecology and Management</i> , 2015, 23, 803-816.	1.5	14
80	Potential of Intelligent Transportation Systems in Mitigating Adverse Weather Impacts on Road Mobility: A Review. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2015, 16, 1107-1119.	8.0	81
81	Hydrologic Drought Atlas for Texas. <i>Journal of Hydrologic Engineering - ASCE</i> , 2015, 20, .	1.9	28
82	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> , 2015, 526, 15-29.	5.4	98
83	Water, Environment, Energy, and Population Growth: Implications for Water Sustainability under Climate Change. <i>Journal of Hydrologic Engineering - ASCE</i> , 2014, 19, 667-673.	1.9	39
84	A brief review of assessment approaches that support evaluation of climate change adaptation options in the water sector. <i>Water Policy</i> , 2014, 16, 959-972.	1.5	10
85	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> , 2014, 35, 1272-1294.	2.9	56
86	Evaluation of hydrological effect of stakeholder prioritized climate change adaptation options based on multi-model regional climate projections. <i>Climatic Change</i> , 2014, 123, 225-239.	3.6	8
87	Assessing future changes in seasonal climatic extremes in the Ganges river basin using an ensemble of regional climate models. <i>Climatic Change</i> , 2014, 123, 273-286.	3.6	39
88	A copula-based precipitation forecasting model: Investigating the interdecadal modulation of ENSO's impacts on monthly precipitation. <i>Water Resources Research</i> , 2014, 50, 580-600.	4.2	78
89	Variability in Canadian Seasonal Streamflow Information and Its Implication for Hydrometric Network Design. <i>Journal of Hydrologic Engineering - ASCE</i> , 2014, 19, .	1.9	29
90	Climate Change and Its Impact on Water Resources. , 2014, , 525-569.		12

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91	Seasonal and spatial variations in the scaling and correlation structure of streamflow data. Hydrological Processes, 2013, 27, 1681-1690.	2.6	14
92	Combining climatological and participatory approaches for assessing changes in extreme climatic indices at regional scale. Climatic Change, 2013, 119, 603-615.	3.6	8
93	Water Deficit Duration and Severity Analysis Based on Runoff Derived from Noah Land Surface Model. Journal of Hydrologic Engineering - ASCE, 2013, 18, 817-833.	1.9	15
94	Regionalization of Drought Characteristics Using an Entropy Approach. Journal of Hydrologic Engineering - ASCE, 2013, 18, 870-887.	1.9	43
95	Drought Analysis Using Copulas. Journal of Hydrologic Engineering - ASCE, 2013, 18, 797-808.	1.9	128
96	Spatial variability of climate change impacts on yield of rice and wheat in the Indian Ganga Basin. Science of the Total Environment, 2013, 468-469, S132-S138.	8.0	71
97	Extraction of information content from stochastic disaggregation and bias corrected downscaled precipitation variables for crop simulation. Stochastic Environmental Research and Risk Assessment, 2013, 27, 449-457.	4.0	19
98	Sub-basin scale characterization of climate change vulnerability, impacts and adaptation in an Indian River basin. Regional Environmental Change, 2013, 13, 1087-1098.	2.9	20
99	Monthly river flow simulation with a joint conditional density estimation network. Water Resources Research, 2013, 49, 3229-3242.	4.2	17
100	A bivariate mixed distribution with a heavy-tailed component and its application to single-site daily rainfall simulation. Water Resources Research, 2013, 49, 767-789.	4.2	94
101	Simulating Hydrological Drought Properties at Different Spatial Units in the United States Based on Wavelet-Bayesian Regression Approach. Earth Interactions, 2012, 16, 1-23.	1.5	9
102	Long Lead Time Drought Forecasting Using a Wavelet and Fuzzy Logic Combination Model: A Case Study in Texas. Journal of Hydrometeorology, 2012, 13, 284-297.	1.9	111
103	Understanding changes in water availability in the Rio Grande/Río Bravo del Norte basin under the influence of large-scale circulation indices using the Noah land surface model. Journal of Geophysical Research, 2012, 117, .	3.3	13
104	Entropy theory-based criterion for hydrometric network evaluation and design: Maximum information minimum redundancy. Water Resources Research, 2012, 48, .	4.2	89
105	Simulation of the entire range of daily precipitation using a hybrid probability distribution. Water Resources Research, 2012, 48, .	4.2	60
106	Association between Uncertainties in Meteorological Variables and Water-Resources Planning for the State of Texas. Journal of Hydrologic Engineering - ASCE, 2011, 16, 984-999.	1.9	20
107	Seasonal streamflow extremes in Texas river basins: Uncertainty, trends, and teleconnections. Journal of Geophysical Research, 2011, 116, .	3.3	25
108	Drought modeling - A review. Journal of Hydrology, 2011, 403, 157-175.	5.4	691

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109	Wet and dry spell analysis of Global Climate Model-generated precipitation using power laws and wavelet transforms. Stochastic Environmental Research and Risk Assessment, 2011, 25, 517-535.	4.0	22
110	Estimating Palmer Drought Severity Index using a wavelet fuzzy logic model based on meteorological variables. International Journal of Climatology, 2011, 31, 2021-2032.	3.5	39
111	Scaling Characteristics of Precipitation Data over Texas. Journal of Hydrologic Engineering - ASCE, 2011, 16, 1009-1016.	1.9	5
112	Assessing the Impacts of Climate Variability on the Water Resources in the Rio Grande/Río Bravo Basin. , 2010, , .		1
113	Hydrometric network evaluation for Canadian watersheds. Journal of Hydrology, 2010, 380, 420-437.	5.4	95
114	A review of drought concepts. Journal of Hydrology, 2010, 391, 202-216.	5.4	3,361
115	Scaling characteristics of precipitation data in conjunction with wavelet analysis. Journal of Hydrology, 2010, 395, 279-288.	5.4	27
116	Changes in extreme precipitation in Texas. Journal of Geophysical Research, 2010, 115, .	3.3	80
117	Impact of global warming and climate change on social development. Journal of Comparative Social Welfare, 2010, 26, 239-260.	0.3	17
118	Low frequency drought variability associated with climate indices. Journal of Hydrology, 2009, 364, 152-162.	5.4	82
119	An entropy-based investigation into the variability of precipitation. Journal of Hydrology, 2009, 370, 139-154.	5.4	152
120	Trend and persistence of precipitation under climate change scenarios for Kansabati basin, India. Hydrological Processes, 2009, 23, 2345-2357.	2.6	28
121	Drought characterization: a probabilistic approach. Stochastic Environmental Research and Risk Assessment, 2009, 23, 41-55.	4.0	173
122	Developments in hydrometric network design: A review. Reviews of Geophysics, 2009, 47, .	23.0	254
123	Drought Forecasting Using a Hybrid Stochastic and Neural Network Model. Journal of Hydrologic Engineering - ASCE, 2007, 12, 626-638.	1.9	215
124	Drought forecasting using feed-forward recursive neural network. Ecological Modelling, 2006, 198, 127-138.	2.5	282
125	Drought forecasting using stochastic models. Stochastic Environmental Research and Risk Assessment, 2005, 19, 326-339.	4.0	356
126	Spatial and temporal drought analysis in the Kansabati river basin, India. International Journal of River Basin Management, 2005, 3, 31-41.	2.7	129