

Sachindra Dhanapala Arachchige

List of Publications by Year in descending order

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101
papers

5,769
citations

44066

48
h-index

85537

71
g-index

101
all docs

101
docs citations

101
times ranked

3189
citing authors

#	ARTICLE	IF	CITATIONS
1	Drought risk assessment in the western part of Bangladesh. <i>Natural Hazards</i> , 2008, 46, 391-413.	3.4	373
2	Impact of climate change on irrigation water demand of dry season Boro rice in northwest Bangladesh. <i>Climatic Change</i> , 2011, 105, 433-453.	3.6	234
3	Rainfall variability and the trends of wet and dry periods in Bangladesh. <i>International Journal of Climatology</i> , 2010, 30, 2299-2313.	3.5	209
4	Statistical downscaling of precipitation using machine learning techniques. <i>Atmospheric Research</i> , 2018, 212, 240-258.	4.1	188
5	Impacts of climate variability and change on seasonal drought characteristics of Pakistan. <i>Atmospheric Research</i> , 2018, 214, 364-374.	4.1	146
6	Selection of multi-model ensemble of general circulation models for the simulation of precipitation and maximum and minimum temperature based on spatial assessment metrics. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 4803-4824.	4.9	142
7	Prediction of droughts over Pakistan using machine learning algorithms. <i>Advances in Water Resources</i> , 2020, 139, 103562.	3.8	140
8	Selection of climate models for projection of spatiotemporal changes in temperature of Iraq with uncertainties. <i>Atmospheric Research</i> , 2018, 213, 509-522.	4.1	136
9	Model output statistics downscaling using support vector machine for the projection of spatial and temporal changes in rainfall of Bangladesh. <i>Atmospheric Research</i> , 2018, 213, 149-162.	4.1	134
10	Multi-model ensemble predictions of precipitation and temperature using machine learning algorithms. <i>Atmospheric Research</i> , 2020, 236, 104806.	4.1	117
11	Seasonal Drought Pattern Changes Due to Climate Variability: Case Study in Afghanistan. <i>Water (Switzerland)</i> , 2019, 11, 1096.	2.7	110
12	Spatial distribution of unidirectional trends in temperature and temperature extremes in Pakistan. <i>Theoretical and Applied Climatology</i> , 2019, 136, 899-913.	2.8	109
13	Performance Assessment of General Circulation Model in Simulating Daily Precipitation and Temperature Using Multiple Gridded Datasets. <i>Water (Switzerland)</i> , 2018, 10, 1793.	2.7	104
14	Precipitation projection using a CMIP5 GCM ensemble model: a regional investigation of Syria. <i>Engineering Applications of Computational Fluid Mechanics</i> , 2020, 14, 90-106.	3.1	104
15	Trend Analysis of Droughts during Crop Growing Seasons of Nigeria. <i>Sustainability</i> , 2018, 10, 871.	3.2	102
16	Least square support vector and multi-linear regression for statistically downscaling general circulation model outputs to catchment streamflows. <i>International Journal of Climatology</i> , 2013, 33, 1087-1106.	3.5	97
17	Changing Pattern of Droughts during Cropping Seasons of Bangladesh. <i>Water Resources Management</i> , 2018, 32, 1555-1568.	3.9	93
18	Trends in heat wave related indices in Pakistan. <i>Stochastic Environmental Research and Risk Assessment</i> , 2019, 33, 287-302.	4.0	92

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19	Characterization of seasonal droughts in Balochistan Province, Pakistan. <i>Stochastic Environmental Research and Risk Assessment</i> , 2016, 30, 747-762.	4.0	90
20	Evaluation of Gridded Precipitation Datasets over Arid Regions of Pakistan. <i>Water (Switzerland)</i> , 2019, 11, 210.	2.7	88
21	Analysis of Meteorological Drought Pattern During Different Climatic and Cropping Seasons in Bangladesh. <i>Journal of the American Water Resources Association</i> , 2015, 51, 794-806.	2.4	86
22	Statistical downscaling of general circulation model outputs to precipitation—part 2: bias correction and future projections. <i>International Journal of Climatology</i> , 2014, 34, 3282-3303.	3.5	85
23	Evaluation of CMIP6 GCM rainfall in mainland Southeast Asia. <i>Atmospheric Research</i> , 2021, 254, 105525.	4.1	85
24	Selection of gridded precipitation data for Iraq using compromise programming. <i>Measurement: Journal of the International Measurement Confederation</i> , 2019, 132, 87-98.	5.0	81
25	Fidelity assessment of general circulation model simulated precipitation and temperature over Pakistan using a feature selection method. <i>Journal of Hydrology</i> , 2019, 573, 281-298.	5.4	77
26	Impact of climate change on urban heat island effect and extreme temperatures: a case study. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2016, 142, 172-186.	2.7	76
27	Genetic Programming for the Downscaling of Extreme Rainfall Events on the East Coast of Peninsular Malaysia. <i>Atmosphere</i> , 2014, 5, 914-936.	2.3	75
28	Projection of spatial and temporal changes of rainfall in Sarawak of Borneo Island using statistical downscaling of CMIP5 models. <i>Atmospheric Research</i> , 2017, 197, 446-460.	4.1	75
29	Prediction of heat waves in Pakistan using quantile regression forests. <i>Atmospheric Research</i> , 2019, 221, 1-11.	4.1	74
30	A MCDM-based framework for selection of general circulation models and projection of spatio-temporal rainfall changes: A case study of Nigeria. <i>Atmospheric Research</i> , 2019, 225, 1-16.	4.1	73
31	Evaluation of Empirical Reference Evapotranspiration Models Using Compromise Programming: A Case Study of Peninsular Malaysia. <i>Sustainability</i> , 2019, 11, 4267.	3.2	72
32	Spatiotemporal changes in aridity of Pakistan during 1901–2016. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 3081-3096.	4.9	68
33	Spatiotemporal nexus between vegetation change and extreme climatic indices and their possible causes of change. <i>Journal of Environmental Management</i> , 2021, 289, 112505.	7.8	68
34	Climate change uncertainties in seasonal drought severity-area-frequency curves: Case of arid region of Pakistan. <i>Journal of Hydrology</i> , 2019, 570, 473-485.	5.4	66
35	Prediction of meteorological drought by using hybrid support vector regression optimized with HHO versus PSO algorithms. <i>Environmental Science and Pollution Research</i> , 2021, 28, 39139-39158.	5.3	66
36	Spatial distribution of secular trends in rainfall indices of Peninsular Malaysia in the presence of long-term persistence. <i>Meteorological Applications</i> , 2019, 26, 655-670.	2.1	65

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37	Projection of meteorological droughts in Nigeria during growing seasons under climate change scenarios. <i>Scientific Reports</i> , 2020, 10, 10107.	3.3	63
38	Spatiotemporal trends in reference evapotranspiration and its driving factors in Bangladesh. <i>Theoretical and Applied Climatology</i> , 2021, 144, 793-808.	2.8	63
39	Comparison of CMIP6 and CMIP5 model performance in simulating historical precipitation and temperature in Bangladesh: a preliminary study. <i>Theoretical and Applied Climatology</i> , 2021, 145, 1385-1406.	2.8	63
40	Multilayer perceptron neural network for downscaling rainfall in arid region: A case study of Baluchistan, Pakistan. <i>Journal of Earth System Science</i> , 2015, 124, 1325-1341.	1.3	60
41	A novel framework for selecting general circulation models based on the spatial patterns of climate. <i>International Journal of Climatology</i> , 2020, 40, 4422-4443.	3.5	60
42	Spatiotemporal changes in aridity and the shift of drylands in Iran. <i>Atmospheric Research</i> , 2020, 233, 104704.	4.1	58
43	Evaluating severityâ€‘areaâ€‘frequency (SAF) of seasonal droughts in Bangladesh under climate change scenarios. <i>Stochastic Environmental Research and Risk Assessment</i> , 2020, 34, 447-464.	4.0	58
44	Statistical downscaling of general circulation model outputs to precipitationâ€‘part 1: calibration and validation. <i>International Journal of Climatology</i> , 2014, 34, 3264-3281.	3.5	57
45	Spatial distribution of the trends in precipitation and precipitation extremes in the sub-Himalayan region of Pakistan. <i>Theoretical and Applied Climatology</i> , 2019, 137, 2755-2769.	2.8	57
46	Uncertainty in Rainfall Intensity Duration Frequency Curves of Peninsular Malaysia under Changing Climate Scenarios. <i>Water (Switzerland)</i> , 2018, 10, 1750.	2.7	56
47	Selection of GCMs for the projection of spatial distribution of heat waves in Pakistan. <i>Atmospheric Research</i> , 2020, 233, 104688.	4.1	56
48	Spatial Pattern of the Unidirectional Trends in Thermal Bioclimatic Indicators in Iran. <i>Sustainability</i> , 2019, 11, 2287.	3.2	52
49	Physical-empirical models for prediction of seasonal rainfall extremes of Peninsular Malaysia. <i>Atmospheric Research</i> , 2020, 233, 104720.	4.1	51
50	Modeling climate change impacts on precipitation in arid regions of Pakistan: a non-local model output statistics downscaling approach. <i>Theoretical and Applied Climatology</i> , 2019, 137, 1347-1364.	2.8	47
51	Selection of CMIP5 multi-model ensemble for the projection of spatial and temporal variability of rainfall in peninsular Malaysia. <i>Theoretical and Applied Climatology</i> , 2019, 138, 999-1012.	2.8	45
52	Spatial interpolation of climatic variables in a predominantly arid region with complex topography. <i>Environment Systems and Decisions</i> , 2014, 34, 555-563.	3.4	41
53	GCM selection and temperature projection of Nigeria under different RCPs of the CMIP5 GCMS. <i>Theoretical and Applied Climatology</i> , 2020, 141, 1611-1627.	2.8	41
54	A novel selection method of CMIP6 GCMs for robust climate projection. <i>International Journal of Climatology</i> , 2022, 42, 4258-4272.	3.5	39

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55	Future Population Exposure to Daytime and Nighttime Heat Waves in South Asia. <i>Earth's Future</i> , 2022, 10, .	6.3	39
56	Selection of CMIP5 general circulation model outputs of precipitation for peninsular Malaysia. <i>Hydrology Research</i> , 2020, 51, 781-798.	2.7	38
57	River water level prediction in coastal catchment using hybridized relevance vector machine model with improved grasshopper optimization. <i>Journal of Hydrology</i> , 2021, 598, 126477.	5.4	36
58	Spatiotemporal changes in global aridity in terms of multiple aridity indices: An assessment based on the CRU data. <i>Atmospheric Research</i> , 2022, 268, 105998.	4.1	36
59	Evaluation of global climate models for precipitation projection in sub-Himalaya region of Pakistan. <i>Atmospheric Research</i> , 2020, 245, 105061.	4.1	35
60	Spatiotemporal changes and modulations of extreme climatic indices in monsoon-dominated climate region linkage with large-scale atmospheric oscillation. <i>Atmospheric Research</i> , 2021, 264, 105840.	4.1	34
61	Selection of general circulation models for the projections of spatio-temporal changes in temperature of Borneo Island based on CMIP5. <i>Theoretical and Applied Climatology</i> , 2020, 139, 351-371.	2.8	33
62	Development of multi-model ensemble for projection of extreme rainfall events in Peninsular Malaysia. <i>Hydrology Research</i> , 2019, 50, 1772-1788.	2.7	32
63	Multi-model ensemble approach for statistically downscaling general circulation model outputs to precipitation. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2014, 140, 1161-1178.	2.7	30
64	Downscaling and Projection of Spatiotemporal Changes in Temperature of Bangladesh. <i>Earth Systems and Environment</i> , 2019, 3, 381-398.	6.2	30
65	Statistical Downscaling of General Circulation Model Outputs to Precipitation Accounting for Non-Stationarities in Predictor-Predictand Relationships. <i>PLoS ONE</i> , 2016, 11, e0168701.	2.5	27
66	Machine learning for downscaling: the use of parallel multiple populations in genetic programming. <i>Stochastic Environmental Research and Risk Assessment</i> , 2019, 33, 1497-1533.	4.0	25
67	Differences in multi-model ensembles of CMIP5 and CMIP6 projections for future droughts in South Korea. <i>International Journal of Climatology</i> , 2022, 42, 2688-2716.	3.5	25
68	Cautionary note on the use of genetic programming in statistical downscaling. <i>International Journal of Climatology</i> , 2018, 38, 3449-3465.	3.5	23
69	Projection of Hot and Cold Extremes in the Amu River Basin of Central Asia using GCMs CMIP6. <i>Stochastic Environmental Research and Risk Assessment</i> , 2022, 36, 3395-3416.	4.0	22
70	Spatiotemporal changes in precipitation extremes in the arid province of Pakistan with removal of the influence of natural climate variability. <i>Theoretical and Applied Climatology</i> , 2020, 142, 1447-1462.	2.8	19
71	Prediction of heat waves over Pakistan using support vector machine algorithm in the context of climate change. <i>Stochastic Environmental Research and Risk Assessment</i> , 2021, 35, 1335.	4.0	19
72	Assessment of CMIP6 global climate models in reconstructing rainfall climatology of Bangladesh. <i>International Journal of Climatology</i> , 2022, 42, 3928-3953.	3.5	19

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73	Influence of Surface Water Bodies on the Land Surface Temperature of Bangladesh. Sustainability, 2019, 11, 6754.	3.2	18
74	High-Resolution Climate Projections for a Densely Populated Mediterranean Region. Sustainability, 2020, 12, 3684.	3.2	18
75	Application of ensemble machine learning model in downscaling and projecting climate variables over different climate regions in Iran. Environmental Science and Pollution Research, 2022, 29, 17260-17279.	5.3	17
76	Spatiotemporal changes in rainfall and droughts of Bangladesh for 1.5 and 2°C temperature rise scenarios of CMIP6 models. Theoretical and Applied Climatology, 2021, 146, 527-542.	2.8	16
77	Spatiotemporal distribution of drought and its possible associations with ENSO indices in Bangladesh. Arabian Journal of Geosciences, 2021, 14, 1.	1.3	15
78	Statistical downscaling of general circulation model outputs to catchment scale hydroclimatic variables: issues, challenges and possible solutions. Journal of Water and Climate Change, 2014, 5, 496-525.	2.9	14
79	Pros and cons of using wavelets in conjunction with genetic programming and generalised linear models in statistical downscaling of precipitation. Theoretical and Applied Climatology, 2019, 138, 617-638.	2.8	14
80	Spatial Shift of Aridity and Its Impact on Land Use of Syria. Sustainability, 2019, 11, 7047.	3.2	12
81	Multi-variable model output statistics downscaling for the projection of spatio-temporal changes in rainfall of Borneo Island. Journal of Hydro-Environment Research, 2020, 31, 62-75.	2.2	12
82	Divergence of potential evapotranspiration trends over Pakistan during 1967-2016. Theoretical and Applied Climatology, 2020, 141, 215-227.	2.8	12
83	Uncertainty of climate change impact on crop characteristics: a case study of Moghan plain in Iran. Theoretical and Applied Climatology, 0, , .	2.8	12
84	Defining climate zone of Borneo based on cluster analysis. Theoretical and Applied Climatology, 2021, 145, 1467-1484.	2.8	11
85	Comparison of precipitation projections of CMIP5 and CMIP6 global climate models over Yulin, China. Theoretical and Applied Climatology, 2022, 147, 535-548.	2.8	11
86	Potential improvements to statistical downscaling of general circulation model outputs to catchment streamflows with downscaled precipitation and evaporation. Theoretical and Applied Climatology, 2015, 122, 159-179.	2.8	10
87	Replicability of Annual and Seasonal Precipitation by CMIP5 and CMIP6 GCMs over East Asia. KSCE Journal of Civil Engineering, 2022, 26, 1978-1989.	1.9	10
88	Groundwater-dependent irrigation costs and benefits for adaptation to global change. Mitigation and Adaptation Strategies for Global Change, 2018, 23, 953-979.	2.1	9
89	Precipitation and runoff variation characteristics in typical regions of North China Plain: a case study of Hengshui City. Theoretical and Applied Climatology, 2020, 142, 971-985.	2.8	9
90	Annual statistical downscaling of precipitation and evaporation and monthly disaggregation. Theoretical and Applied Climatology, 2018, 131, 181-200.	2.8	8

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91	Drought Index Prediction Using Data Intelligent Analytic Models: A Review. Springer Transactions in Civil and Environmental Engineering, 2021, , 1-27.	0.4	8
92	Prediction of heat waves using meteorological variables in diverse regions of Iran with advanced machine learning models. Stochastic Environmental Research and Risk Assessment, 2022, 36, 1959-1974.	4.0	8
93	Relative performance of CMIP5 and CMIP6 models in simulating rainfall in Peninsular Malaysia. Theoretical and Applied Climatology, 2022, 149, 709-725.	2.8	8
94	Determination of cotton and wheat yield using the standard precipitation evaporation index in Pakistan. Arabian Journal of Geosciences, 2021, 14, 1.	1.3	6
95	Volatility in Rainfall and Predictability of Droughts in Northwest Bangladesh. Sustainability, 2020, 12, 9810.	3.2	5
96	Statistical downscaling of general circulation model outputs to evaporation, minimum temperature and maximum temperature using a key-predictand and key-station approach. Journal of Water and Climate Change, 2015, 6, 241-262.	2.9	4
97	Characteristics of air temperature in Poland from 1994 to 2019 based on hourly data. International Journal of Climatology, 2021, 41, 4359-4385.	3.5	4
98	Review of construction labor productivity factors from a geographical standpoint. International Journal of Construction Management, 2023, 23, 697-707.	3.2	3
99	Variations in relative humidity across Poland and its possible impacts on outdoor thermal comfort: An analysis based on hourly data from 1995 to 2020. International Journal of Climatology, 0, , .	3.5	3
100	Analysis of historical drought and flood characteristics of Hengshui during the period 1649â€“2018: a typical city in North China. Natural Hazards, 2021, 108, 2081-2099.	3.4	2
101	Statistical downscaling of general circulation model outputs to precipitation, evaporation and temperature using a key station approach. Journal of Water and Climate Change, 2016, 7, 683-707.	2.9	1