

# Sachindra Dhanapala Arachchige

## List of Publications by Year in Descending Order

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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.

97  
papers

3,339  
citations

36  
h-index

55  
g-index

101  
ext. papers

4,479  
ext. citations

3.8  
avg, IF

6.39  
L-index

| #  | Paper  | IF  | Citations |
|----|--|-----|-----------|
| 97 | Spatiotemporal changes in global aridity in terms of multiple aridity indices: An assessment based on the CRU data. <i>Atmospheric Research</i> , <b>2022</b> , 268, 105998  | 5.4 | 1         |
| 96 | Spatiotemporal distribution of drought and its possible associations with ENSO indices in Bangladesh. <i>Arabian Journal of Geosciences</i> , <b>2021</b> , 14, 1  | 1.8 | 6         |
| 95 | Application of ensemble machine learning model in downscaling and projecting climate variables over different climate regions in Iran. <i>Environmental Science and Pollution Research</i> , <b>2021</b> , 1         | 5.1 | 0         |
| 94 | Drought Index Prediction Using Data Intelligent Analytic Models: A Review. <i>Springer Transactions in Civil and Environmental Engineering</i> , <b>2021</b> , 1-27  | 0.4 | 4         |
| 93 | Characteristics of air temperature in Poland from 1994 to 2019 based on hourly data. <i>International Journal of Climatology</i> , <b>2021</b> , 41, 4359-4385   | 3.5 | 0         |
| 92 | Analysis of historical drought and flood characteristics of Hengshui during the period 1649-2018: a typical city in North China. <i>Natural Hazards</i> , <b>2021</b> , 108, 2081-2099                               | 3   | 1         |
| 91 | Evaluation of CMIP6 GCM rainfall in mainland Southeast Asia. <i>Atmospheric Research</i> , <b>2021</b> , 254, 105525   | 5.4 | 21        |
| 90 | River water level prediction in coastal catchment using hybridized relevance vector machine model with improved grasshopper optimization. <i>Journal of Hydrology</i> , <b>2021</b> , 598, 126477                    | 6   | 13        |
| 89 | Spatiotemporal nexus between vegetation change and extreme climatic indices and their possible causes of change. <i>Journal of Environmental Management</i> , <b>2021</b> , 289, 112505                              | 7.9 | 23        |
| 88 | Defining climate zone of Borneo based on cluster analysis. <i>Theoretical and Applied Climatology</i> , <b>2021</b> , 145, 1467-1484   | 3   | 1         |
| 87 | Spatiotemporal trends in reference evapotranspiration and its driving factors in Bangladesh. <i>Theoretical and Applied Climatology</i> , <b>2021</b> , 144, 793-808   | 3   | 27        |
| 86 | Prediction of meteorological drought by using hybrid support vector regression optimized with HHO versus PSO algorithms. <i>Environmental Science and Pollution Research</i> , <b>2021</b> , 28, 39139-39158         | 5.1 | 23        |
| 85 | Comparison of CMIP6 and CMIP5 model performance in simulating historical precipitation and temperature in Bangladesh: a preliminary study. <i>Theoretical and Applied Climatology</i> , <b>2021</b> , 145, 1385-1406 | 3.6 | 15        |
| 84 | Spatiotemporal changes in rainfall and droughts of Bangladesh for 1.5 and 2 °C temperature rise scenarios of CMIP6 models. <i>Theoretical and Applied Climatology</i> , <b>2021</b> , 146, 527-542                   | 3   | 4         |
| 83 | Determination of cotton and wheat yield using the standard precipitation evaporation index in Pakistan. <i>Arabian Journal of Geosciences</i> , <b>2021</b> , 14, 1  | 1.8 | 0         |
| 82 | Spatiotemporal changes and modulations of extreme climatic indices in monsoon-dominated climate region linkage with large-scale atmospheric oscillation. <i>Atmospheric Research</i> , <b>2021</b> , 264, 105840     | 5.4 | 5         |
| 81 | 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> , <b>2021</b> , 35, 1335                | 3.5 | 2         |

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| 80 | Volatility in Rainfall and Predictability of Droughts in Northwest Bangladesh. <i>Sustainability</i> , <b>2020</b> , 12, 9810   | 3.6 | 1  |
| 79 | Evaluation of global climate models for precipitation projection in sub-Himalaya region of Pakistan. <i>Atmospheric Research</i> , <b>2020</b> , 245, 105061  | 5.4 | 11 |
| 78 | GCM selection and temperature projection of Nigeria under different RCPs of the CMIP5 GCMS. <i>Theoretical and Applied Climatology</i> , <b>2020</b> , 141, 1611-1627   | 3   | 15 |
| 77 | Projection of meteorological droughts in Nigeria during growing seasons under climate change scenarios. <i>Scientific Reports</i> , <b>2020</b> , 10, 10107   | 4.9 | 34 |
| 76 | High-Resolution Climate Projections for a Densely Populated Mediterranean Region. <i>Sustainability</i> , <b>2020</b> , 12, 3684  | 3.6 | 8  |
| 75 | Prediction of droughts over Pakistan using machine learning algorithms. <i>Advances in Water Resources</i> , <b>2020</b> , 139, 103562  | 4.7 | 68 |
| 74 | Evaluating severity-area-frequency (SAF) of seasonal droughts in Bangladesh under climate change scenarios. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2020</b> , 34, 447-464                      | 3.5 | 29 |
| 73 | A novel framework for selecting general circulation models based on the spatial patterns of climate. <i>International Journal of Climatology</i> , <b>2020</b> , 40, 4422-4443  | 3.5 | 21 |
| 72 | Precipitation projection using a CMIP5 GCM ensemble model: a regional investigation of Syria. <i>Engineering Applications of Computational Fluid Mechanics</i> , <b>2020</b> , 14, 90-106                                 | 4.5 | 59 |
| 71 | Multi-model ensemble predictions of precipitation and temperature using machine learning algorithms. <i>Atmospheric Research</i> , <b>2020</b> , 236, 104806  | 5.4 | 49 |
| 70 | Selection of CMIP5 general circulation model outputs of precipitation for peninsular Malaysia <b>2020</b> , 51, 781-798   |     | 16 |
| 69 | Multi-variable model output statistics downscaling for the projection of spatio-temporal changes in rainfall of Borneo Island. <i>Journal of Hydro-Environment Research</i> , <b>2020</b> , 31, 62-75                     | 2.3 | 4  |
| 68 | 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> , <b>2020</b> , 142, 1447-1462 | 3   | 9  |
| 67 | Precipitation and runoff variation characteristics in typical regions of North China Plain: a case study of Hengshui City. <i>Theoretical and Applied Climatology</i> , <b>2020</b> , 142, 971-985                        | 3   | 5  |
| 66 | Spatiotemporal changes in aridity and the shift of drylands in Iran. <i>Atmospheric Research</i> , <b>2020</b> , 233, 104704  | 3.4 | 36 |
| 65 | Selection of GCMs for the projection of spatial distribution of heat waves in Pakistan. <i>Atmospheric Research</i> , <b>2020</b> , 233, 104688   | 5.4 | 24 |
| 64 | Physical-empirical models for prediction of seasonal rainfall extremes of Peninsular Malaysia. <i>Atmospheric Research</i> , <b>2020</b> , 233, 104720  | 5.4 | 33 |
| 63 | 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> , <b>2020</b> , 139, 351-371            | 3   | 24 |

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| 62 | Divergence of potential evapotranspiration trends over Pakistan during 1967-2016. <i>Theoretical and Applied Climatology</i> , <b>2020</b> , 141, 215-227   | 3   | 7  |
| 61 | Evaluation of Empirical Reference Evapotranspiration Models Using Compromise Programming: A Case Study of Peninsular Malaysia. <i>Sustainability</i> , <b>2019</b> , 11, 4267   | 3.6 | 44 |
| 60 | Downscaling and Projection of Spatiotemporal Changes in Temperature of Bangladesh. <i>Earth Systems and Environment</i> , <b>2019</b> , 3, 381-398  | 7.5 | 10 |
| 59 | Prediction of heat waves in Pakistan using quantile regression forests. <i>Atmospheric Research</i> , <b>2019</b> , 221, 1-11   | 5.4 | 49 |
| 58 | Evaluation of Gridded Precipitation Datasets over Arid Regions of Pakistan. <i>Water (Switzerland)</i> , <b>2019</b> , 11, 210  | 3   | 54 |
| 57 | Seasonal Drought Pattern Changes Due to Climate Variability: Case Study in Afghanistan. <i>Water (Switzerland)</i> , <b>2019</b> , 11, 1096   | 3   | 65 |
| 56 | 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> , <b>2019</b> , 138, 999-1012   | 3   | 28 |
| 55 | Spatial Pattern of the Unidirectional Trends in Thermal Bioclimatic Indicators in Iran. <i>Sustainability</i> , <b>2019</b> , 11, 2287  | 3.6 | 33 |
| 54 | Pros and cons of using wavelets in conjunction with genetic programming and generalised linear models in statistical downscaling of precipitation. <i>Theoretical and Applied Climatology</i> , <b>2019</b> , 138, 617-638                            | 3   | 12 |
| 53 | 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> , <b>2019</b> , 225, 1-16   | 5.4 | 47 |
| 52 | Fidelity assessment of general circulation model simulated precipitation and temperature over Pakistan using a feature selection method. <i>Journal of Hydrology</i> , <b>2019</b> , 573, 281-298   | 6   | 48 |
| 51 | Spatial distribution of secular trends in rainfall indices of Peninsular Malaysia in the presence of long-term persistence. <i>Meteorological Applications</i> , <b>2019</b> , 26, 655-670  | 2.1 | 48 |
| 50 | Spatial distribution of unidirectional trends in temperature and temperature extremes in Pakistan. <i>Theoretical and Applied Climatology</i> , <b>2019</b> , 136, 899-913  | 3   | 69 |
| 49 | Spatiotemporal changes in aridity of Pakistan during 1901-2016. <i>Hydrology and Earth System Sciences</i> , <b>2019</b> , 23, 3081-3096  | 5.5 | 34 |
| 48 | Machine learning for downscaling: the use of parallel multiple populations in genetic programming. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2019</b> , 33, 1497-1533   | 3.5 | 15 |
| 47 | Influence of Surface Water Bodies on the Land Surface Temperature of Bangladesh. <i>Sustainability</i> , <b>2019</b> , 11, 6754   | 3.6 | 13 |
| 46 | 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> , <b>2019</b> , 23, 4803-4824 | 5.5 | 58 |
| 45 | Spatial Shift of Aridity and Its Impact on Land Use of Syria. <i>Sustainability</i> , <b>2019</b> , 11, 7047  | 3.6 | 7  |

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| 44 | Development of multi-model ensemble for projection of extreme rainfall events in Peninsular Malaysia <b>2019</b> , 50, 1772-1788  |     | 22  |
| 43 | Trends in heat wave related indices in Pakistan. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2019</b> , 33, 287-302   | 3.5 | 53  |
| 42 | Spatial distribution of the trends in precipitation and precipitation extremes in the sub-Himalayan region of Pakistan. <i>Theoretical and Applied Climatology</i> , <b>2019</b> , 137, 2755-2769                 | 3   | 36  |
| 41 | Climate change uncertainties in seasonal drought severity-area-frequency curves: Case of arid region of Pakistan. <i>Journal of Hydrology</i> , <b>2019</b> , 570, 473-485  | 6   | 36  |
| 40 | 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> , <b>2019</b> , 137, 1347-1364 | 3   | 30  |
| 39 | Selection of gridded precipitation data for Iraq using compromise programming. <i>Measurement: Journal of the International Measurement Confederation</i> , <b>2019</b> , 132, 87-98                              | 4.6 | 55  |
| 38 | Changing Pattern of Droughts during Cropping Seasons of Bangladesh. <i>Water Resources Management</i> , <b>2018</b> , 32, 1555-1568   | 3.7 | 57  |
| 37 | Annual statistical downscaling of precipitation and evaporation and monthly disaggregation. <i>Theoretical and Applied Climatology</i> , <b>2018</b> , 131, 181-200   | 3   | 8   |
| 36 | Selection of climate models for projection of spatiotemporal changes in temperature of Iraq with uncertainties. <i>Atmospheric Research</i> , <b>2018</b> , 213, 509-522  | 5.4 | 78  |
| 35 | Trend Analysis of Droughts during Crop Growing Seasons of Nigeria. <i>Sustainability</i> , <b>2018</b> , 10, 871  | 3.6 | 72  |
| 34 | Impacts of climate variability and change on seasonal drought characteristics of Pakistan. <i>Atmospheric Research</i> , <b>2018</b> , 214, 364-374   | 5.4 | 99  |
| 33 | Cautionary note on the use of genetic programming in statistical downscaling. <i>International Journal of Climatology</i> , <b>2018</b> , 38, 3449-3465   | 3.5 | 19  |
| 32 | Model output statistics downscaling using support vector machine for the projection of spatial and temporal changes in rainfall of Bangladesh. <i>Atmospheric Research</i> , <b>2018</b> , 213, 149-162           | 5.4 | 78  |
| 31 | Groundwater-dependent irrigation costs and benefits for adaptation to global change. <i>Mitigation and Adaptation Strategies for Global Change</i> , <b>2018</b> , 23, 953-979                                    | 3.9 | 4   |
| 30 | Uncertainty in Rainfall Intensity Duration Frequency Curves of Peninsular Malaysia under Changing Climate Scenarios. <i>Water (Switzerland)</i> , <b>2018</b> , 10, 1750  | 3   | 38  |
| 29 | Performance Assessment of General Circulation Model in Simulating Daily Precipitation and Temperature Using Multiple Gridded Datasets. <i>Water (Switzerland)</i> , <b>2018</b> , 10, 1793                        | 3   | 65  |
| 28 | Statistical downscaling of precipitation using machine learning techniques. <i>Atmospheric Research</i> , <b>2018</b> , 212, 240-258  | 5.4 | 105 |
| 27 | Projection of spatial and temporal changes of rainfall in Sarawak of Borneo Island using statistical downscaling of CMIP5 models. <i>Atmospheric Research</i> , <b>2017</b> , 197, 446-460                        | 5.4 | 56  |

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| 26 | Characterization of seasonal droughts in Balochistan Province, Pakistan. <i>Stochastic Environmental Research and Risk Assessment</i> , <b>2016</b> , 30, 747-762   | 3.5 | 66  |
| 25 | Statistical Downscaling of General Circulation Model Outputs to Precipitation Accounting for Non-Stationarities in Predictor-Predictand Relationships. <i>PLoS ONE</i> , <b>2016</b> , 11, e0168701   | 3.7 | 22  |
| 24 | Statistical downscaling of general circulation model outputs to precipitation, evaporation and temperature using a key station approach. <i>Journal of Water and Climate Change</i> , <b>2016</b> , 7, 683-707                                  | 2.3 | 1   |
| 23 | Impact of climate change on urban heat island effect and extreme temperatures: a case-study. <i>Quarterly Journal of the Royal Meteorological Society</i> , <b>2016</b> , 142, 172-186  | 6.4 | 45  |
| 22 | Analysis of Meteorological Drought Pattern During Different Climatic and Cropping Seasons in Bangladesh. <i>Journal of the American Water Resources Association</i> , <b>2015</b> , 51, 794-806   | 2.1 | 57  |
| 21 | Potential improvements to statistical downscaling of general circulation model outputs to catchment streamflows with downscaled precipitation and evaporation. <i>Theoretical and Applied Climatology</i> , <b>2015</b> , 122, 159-179          | 3   | 9   |
| 20 | Statistical downscaling of general circulation model outputs to evaporation, minimum temperature and maximum temperature using a key-predictand and key-station approach. <i>Journal of Water and Climate Change</i> , <b>2015</b> , 6, 241-262 | 2.3 | 4   |
| 19 | Multilayer perceptron neural network for downscaling rainfall in arid region: A case study of Baluchistan, Pakistan. <i>Journal of Earth System Science</i> , <b>2015</b> , 124, 1325-1341  | 1.8 | 39  |
| 18 | Statistical downscaling of general circulation model outputs to precipitation Part 1: calibration and validation. <i>International Journal of Climatology</i> , <b>2014</b> , 34, 3264-3281   | 3.5 | 48  |
| 17 | Statistical downscaling of general circulation model outputs to catchment scale hydroclimatic variables: issues, challenges and possible solutions. <i>Journal of Water and Climate Change</i> , <b>2014</b> , 5, 496-525                       | 2.3 | 11  |
| 16 | Genetic Programming for the Downscaling of Extreme Rainfall Events on the East Coast of Peninsular Malaysia. <i>Atmosphere</i> , <b>2014</b> , 5, 914-936   | 2.7 | 66  |
| 15 | Spatial interpolation of climatic variables in a predominantly arid region with complex topography. <i>Environment Systems and Decisions</i> , <b>2014</b> , 34, 555-563  | 4.1 | 28  |
| 14 | Statistical downscaling of general circulation model outputs to precipitation Part 2: bias-correction and future projections. <i>International Journal of Climatology</i> , <b>2014</b> , 34, 3282-3303   | 3.5 | 60  |
| 13 | Multi-model ensemble approach for statistically downscaling general circulation model outputs to precipitation. <i>Quarterly Journal of the Royal Meteorological Society</i> , <b>2014</b> , 140, 1161-1178                                     | 6.4 | 23  |
| 12 | Least square support vector and multi-linear regression for statistically downscaling general circulation model outputs to catchment streamflows. <i>International Journal of Climatology</i> , <b>2013</b> , 33, 1087-1106                     | 3.5 | 76  |
| 11 | Impact of climate change on irrigation water demand of dry season Boro rice in northwest Bangladesh. <i>Climatic Change</i> , <b>2011</b> , 105, 433-453  | 4.5 | 188 |
| 10 | Rainfall variability and the trends of wet and dry periods in Bangladesh. <i>International Journal of Climatology</i> , <b>2010</b> , 30, 2299-2313   | 3.5 | 152 |
| 9  | Drought risk assessment in the western part of Bangladesh. <i>Natural Hazards</i> , <b>2008</b> , 46, 391-413   | 3   | 282 |

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|---|---|-----|---|
| 8 | Comparison of precipitation projections of CMIP5 and CMIP6 global climate models over Yulin, China. <i>Theoretical and Applied Climatology</i> ,1   | 3   | 1 |
| 7 | A novel selection method of CMIP6 GCMs for robust climate projection. <i>International Journal of Climatology</i> ,   | 3.5 | 6 |
| 6 | Assessment of CMIP6 global climate models in reconstructing rainfall climatology of Bangladesh. <i>International Journal of Climatology</i> ,   | 3.5 | 3 |
| 5 | Replicability of Annual and Seasonal Precipitation by CMIP5 and CMIP6 GCMs over East Asia. <i>KSCE Journal of Civil Engineering</i> ,1  | 1.9 | 1 |
| 4 | Prediction of heat waves using meteorological variables in diverse regions of Iran with advanced machine learning models. <i>Stochastic Environmental Research and Risk Assessment</i> ,1 | 3.5 | 1 |
| 3 | Review of construction labor productivity factors from a geographical standpoint. <i>International Journal of Construction Management</i> ,1-19   | 1.9 | 0 |
| 2 | Differences in multi-model ensembles of CMIP5 and CMIP6 projections for future droughts in South Korea. <i>International Journal of Climatology</i> ,                                     | 3.5 | 4 |
| 1 | Relative performance of CMIP5 and CMIP6 models in simulating rainfall in Peninsular Malaysia. <i>Theoretical and Applied Climatology</i> ,1   | 3   | 0 |