Sudhir Kumar Singh

List of Publications by Year
in descending order

132 papers	5,354 citations	81839 39 h-index	110317 64 g-index
140 all docs	140 docs citations	140 times ranked	3551 citing authors

#	Article	IF	Citations
1	Applications of Remote Sensing in Precision Agriculture: A Review. Remote Sensing, 2020, 12, 3136.	1.8	380
2	Predicting Spatial and Decadal LULC Changes Through Cellular Automata Markov Chain Models Using Earth Observation Datasets and Geo-information. Environmental Processes, 2015, 2, 61-78.	1.7	253
3	Assessment of urban heat islands (UHI) of Noida City, India using multi-temporal satellite data. Sustainable Cities and Society, 2016, 22, 19-28.	5.1	186
4	Delineation of groundwater potential zones using geospatial techniques and analytical hierarchy process in Dumka district, Jharkhand, India. Groundwater for Sustainable Development, 2019, 9, 100239.	2.3	145
5	Assessment of heavy metal contamination in the sediment of the River Ghaghara, a major tributary of the River Ganga in Northern India. Applied Water Science, 2017, 7, 4133-4149.	2.8	141
6	SWAT Model Calibration and Uncertainty Analysis for Streamflow Prediction in the Kunwari River Basin, India, Using Sequential Uncertainty Fitting. Environmental Processes, 2015, 2, 79-95.	1.7	137
7	Appraisal of land use/land cover of mangrove forest ecosystem using support vector machine. Environmental Earth Sciences, 2014, 71, 2245-2255.	1.3	126
8	Evaluation of groundwater quality in the Chotanagpur plateau region of the Subarnarekha river basin, Jharkhand State, India. Sustainability of Water Quality and Ecology, 2015, 6, 57-74.	2.0	124
9	Modeling groundwater quality over a humid subtropical region using numerical indices, earth observation datasets, and X-ray diffraction technique: a case study of Allahabad district, India. Environmental Geochemistry and Health, 2015, 37, 157-180.	1.8	115
10	Modelling of land use land cover change using earth observation data-sets of Tons River Basin, Madhya Pradesh, India. Geocarto International, 2018, 33, 1202-1222.	1.7	115
11	Morphometric based prioritization of watershed for groundwater potential of Mula river basin, Maharashtra, India. , 2018, 2, 256-267.		113
12	Arsenic Contamination of Groundwater in Nepalâ€"An Overview. Water (Switzerland), 2011, 3, 1-20.	1.2	112
13	Morphometric analysis of Upper Tons basin from Northern Foreland of Peninsular India using CARTOSAT satellite and GIS. Geocarto International, 2014, 29, 895-914.	1.7	108
14	Assessment of groundwater quality for irrigation use: a peninsular case study. Applied Water Science, 2018, 8, 1.	2.8	100
15	Integrated Assessment of Groundwater Influenced by a Confluence River System: Concurrence with Remote Sensing and Geochemical Modelling. Water Resources Management, 2013, 27, 4291-4313.	1.9	90
16	What is the impact of COVID-19 pandemic on global carbon emissions?. Science of the Total Environment, 2022, 816, 151503.	3.9	88
17	An integrated approach to delineate the groundwater potential zones in Devdari watershed area of Akola district, Maharashtra, Central India. Environment, Development and Sustainability, 2020, 22, 4867-4887.	2.7	82
18	Intensity Analysis and the Figure of Meritâ€™s components for assessment of a Cellular Automata â€" Markov simulation model. Ecological Indicators, 2019, 101, 933-942.	2.6	81

#	ARTICLE	IF	CITATIONS
19	Precipitation trend analysis of Sindh River basin, India, from 102‐year record (1901–2002). Atmospheric Science Letters, 2016, 17, 71-77.	0.8	80
20	Integrating remote sensing, geographic information systems and global positioning system techniques with hydrological modeling. Applied Water Science, 2017, 7, 1595-1608.	2.8	77
21	Quantifying land use/land cover spatio-temporal landscape pattern dynamics from Hyperion using SVMs classifier and FRAGSTATS®. Geocarto International, 2018, 33, 862-878.	1.7	76
22	Delineation of groundwater potential zones for sustainable development and planning using analytical hierarchy process (AHP), and MIF techniques. Applied Water Science, 2021, 11, .	2.8	73
23	SWAT Model calibration and uncertainty analysis for streamflow prediction of the Tons River Basin, India, using Sequential Uncertainty Fitting (SUFI-2) algorithm. Modeling Earth Systems and Environment, 2017, 3, 1.	1.9	72
24	Investigation of impacts of land use/land cover change on water availability of Tons River Basin, Madhya Pradesh, India. Modeling Earth Systems and Environment, 2018, 4, 295-310.	1.9	66
25	A study of the effectiveness of sewage treatment plants in Delhi region. Applied Water Science, 2013, 3, 57-65.	2.8	63
26	MODELING IMPACT OF LAND USE CHANGE TRAJECTORIES ON GROUNDWATER QUALITY USING REMOTE SENSING AND GIS. Environmental Engineering and Management Journal, 2013, 12, 2343-2355.	0.2	62
27	Tracking a tropical cyclone through WRF–ARW simulation and sensitivity of model physics. Natural Hazards, 2015, 76, 1473-1495.	1.6	59
28	Groundwater evaluation for drinking purposes using statistical index: study of Akola and Buldhana districts of Maharashtra, India. Environment, Development and Sustainability, 2020, 22, 7453-7471.	2.7	59
29	Trend of extreme rainfall events using suitable Global Circulation Model to combat the water logging condition in Kolkata Metropolitan Area. Urban Climate, 2020, 32, 100599.	2.4	57
30	Slope angle and aspect as influencing factors on the accuracy of the SRTM and the ASTER GDEM databases. Physics and Chemistry of the Earth, 2015, 83-84, 137-145.	1.2	55
31	Drainage morphometric analysis using open access earth observation datasets in a drought-affected part of Bundelkhand, India. Applied Geomatics, 2018, 10, 173-189.	1.2	55
32	Effects of Land Transformation on Water Quality of Dal Lake, Srinagar, India. Journal of the Indian Society of Remote Sensing, 2014, 42, 119-128.	1.2	53
33	Modelling of soil permeability using different data driven algorithms based on physical properties of soil. Journal of Hydrology, 2020, 580, 124223.	2.3	53
34	Statistical evaluation of rainfall time series in concurrence with agriculture and water resources of Ken River basin, Central India (1901–2010). Theoretical and Applied Climatology, 2018, 134, 1231-1243.	1.3	50
35	Hydrochemical investigations of groundwater quality for drinking and irrigational purposes: two case studies of Koprivnica-Križevci County (Croatia) and district Allahabad (India). Sustainable Water Resources Management, 2019, 5, 467-490.	1.0	48
36	Prioritisation of sub-watersheds based on earth observation data of agricultural dominated northern river basin of India. Geocarto International, 2018, 33, 339-356.	1.7	47

#	Article	IF	Citations
37	Early warning systems development for agricultural drought assessment in Nigeria. Environmental Monitoring and Assessment, 2020, 192, 798.	1.3	47
38	Landscape transform and spatial metrics for mapping spatiotemporal land cover dynamics using Earth Observation data-sets. Geocarto International, 0, , 1-15.	1.7	46
39	Assessment of river water quality and ecological diversity through multivariate statistical techniques, and earth observation dataset of rivers Ghaghara and Gandak, India. International Journal of River Basin Management, 2017, 15, 347-360.	1.5	46
40	Estimation of infiltration rate from soil properties using regression model for cultivated land. , 2019, 3, 1-13.		46
41	Water Quality Indices and GIS-based evaluation of a decadal groundwater quality. , 2018, 2, 240-255.		44
42	Hydrogeochemical characterization of groundwater of peninsular Indian region using multivariate statistical techniques. Applied Water Science, 2017, 7, 3001-3013.	2.8	42
43	Estimation of Surface Runoff from Semi-arid Ungauged Agricultural Watershed Using SCS-CN Method and Earth Observation Data Sets. Water Conservation Science and Engineering, 2017, 1, 233-247.	0.9	41
44	Extracting water-related features using reflectance data and principal component analysis of Landsat images. Hydrological Sciences Journal, 2018, 63, 269-284.	1.2	41
45	Estimation of crop evapotranspiration through spatial distributed crop coefficient in a semi-arid environment. Agricultural Water Management, 2019, 213, 922-933.	2.4	40
46	Dynamics of land use change in a mining area: a case study of Nadowli District, Ghana. Journal of Mountain Science, 2016, 13, 633-642.	0.8	39
47	Amino acid functionalized magnetic nanoparticles for removal of Ni(II) from aqueous solution. Journal of the Taiwan Institute of Chemical Engineers, 2016, 67, 148-160.	2.7	39
48	Landscape metrics for assessment of land cover change and fragmentation of a heterogeneous watershed. Remote Sensing Applications: Society and Environment, 2018, 10, 224-233.	0.8	38
49	Soil erosion assessment using earth observation data in a trans-boundary river basin. Natural Hazards, 2021, 107, 1-34.	1.6	37
50	Hydrogeochemical evaluation of groundwater of Bhaktapur Municipality, Nepal. Environmental Earth Sciences, 2015, 74, 4973-4988.	1.3	36
51	Quantification of wheat crop evapotranspiration and mapping: A case study from Bhiwani District of Haryana, India. Agricultural Water Management, 2017, 187, 200-209.	2.4	35
52	Appraisal of Soil Conservation Capacity Using NDVI Model-Based C Factor of RUSLE Model for a Semi Arid Ungauged Watershed: a Case Study. Water Conservation Science and Engineering, 2018, 3, 47-58.	0.9	33
53	Drought Identification and Trend Analysis Using Long-Term CHIRPS Satellite Precipitation Product in Bundelkhand, India. Sustainability, 2021, 13, 1042.	1.6	33
54	Spatial interpolation approach-based appraisal of groundwater quality of arid regions. Journal of Water Supply: Research and Technology - AQUA, 2019, 68, 431-447.	0.6	32

#	Article	IF	Citations
55	Assessing impact of climate change on Mundra mangrove forest ecosystem, Gulf of Kutch, western coast of India: a synergistic evaluation using remote sensing. Theoretical and Applied Climatology, 2015, 120, 685-700.	1.3	31
56	Impact of urbanization and land cover change on urban climate: Case study of Nigeria. Urban Climate, 2020, 32, 100600.	2.4	31
57	Comparative evaluation of vertical accuracy of elevated points with ground control points from ASTERDEM and SRTMDEM with respect to CARTOSAT-1DEM. Remote Sensing Applications: Society and Environment, 2019, 13, 289-297.	0.8	30
58	Investigation of the hydrogeochemistry, groundwater quality, and associated health risks in industrialized regions of Tripura, northeast India. Environmental Forensics, 2023, 24, 285-306.	1.3	29
59	Environmental monitoring of water resources with the use of PoS index: a case study from Subarnarekha River basin, India. Environmental Earth Sciences, 2018, 77, 1.	1.3	28
60	Groundwater quality evaluation using numerical indices: a case study (Delhi, India). Sustainable Water Resources Management, 2018, 4, 875-885.	1.0	28
61	Integrated framework for soil and water conservation in Kosi River Basin. Geocarto International, 2020, 35, 391-410.	1.7	26
62	Assessment and Spatial Mapping of Groundwater Quality Parameters Using Metal Pollution Indices, Graphical Methods and Geoinformatics. Analytical Chemistry Letters, 2020, 10, 152-180.	0.4	26
63	Estimation of crop and forest biomass resources in a semi-arid region using satellite data and GIS. Journal of the Saudi Society of Agricultural Sciences, 2021, 20, 302-311.	1.0	25
64	Appraisal of river water quality using open-access earth observation data set: a study of river Ganga at Allahabad (India). Sustainable Water Resources Management, 2019, 5, 755-765.	1.0	24
65	Delineation and classification of rural–urban fringe using geospatial technique and onboard DMSP–Operational Linescan System. Geocarto International, 2018, 33, 375-396.	1.7	23
66	Mapping of groundwater quality using Normalized Difference Dispersal Index of Dwarka sub-city at Delhi National Capital of India. ISH Journal of Hydraulic Engineering, 2017, 23, 229-240.	1.1	22
67	Statistical approach to evaluate groundwater contamination for drinking and irrigation suitability. Groundwater for Sustainable Development, 2019, 9, 100251.	2.3	22
68	Geochemical Modelling of Fluoride Concentration in Hard Rock Terrain of Madhya Pradesh, India. Acta Geologica Sinica, 2013, 87, 1421-1433.	0.8	21
69	Quantitative Estimation of Soil Erosion Using Open-Access Earth Observation Data Sets and Erosion Potential Model. Water Conservation Science and Engineering, 2019, 4, 187-200.	0.9	21
70	Spatial regionalisation of morphometric characteristics of mini watershed of Northern Foreland of Peninsular India. Arabian Journal of Geosciences, 2020, 13, 1.	0.6	21
71	Evaluation of soil erosion and sediment yield spatio-temporal pattern during 1990–2019. Geomatics, Natural Hazards and Risk, 2021, 12, 2676-2707.	2.0	21
72	Simulation of land use/land cover change at a basin scale using satellite data and markov chain model. Geocarto International, 2022, 37, 11339-11364.	1.7	21

#	ARTICLE	IF	CITATIONS
73	Development of fuzzy analytic hierarchy process based water quality model of Upper Ganga river basin, India. Journal of Environmental Management, 2021, 284, 111985.	3.8	20
74	Land Use Fragmentation Analysis Using Remote Sensing and Fragstats. Society of Earth Scientists Series, 2014, , 151-176.	0.2	20
75	Appraisal of long term groundwater quality of peninsular India using water quality index and fractal dimension. Journal of Earth System Science, 2017, 126, 1.	0.6	19
76	Appraisal of groundwater with special reference to nitrate using statistical index approach. Groundwater for Sustainable Development, 2019, 8, 49-58.	2.3	19
77	Geomorphic Analysis, Morphometric-based Prioritization and Tectonic Implications in Chite Lui River, Northeast India. Journal of the Geological Society of India, 2021, 97, 385-395.	0.5	19
78	A new method to map groundwater-dependent ecosystem zones in semi-arid environments: A case study in Chile. Science of the Total Environment, 2022, 816, 151528.	3.9	19
79	AHP and TOPSIS Based Sub-Watershed Prioritization and Tectonic Analysis of Ami River Basin, Uttar Pradesh. Journal of the Geological Society of India, 2022, 98, 423-430.	0.5	19
80	Erosion risk assessment through prioritization of sub-watersheds in Nyabarongo river catchment, Rwanda. Environmental Challenges, 2021, 5, 100260.	2.0	18
81	Deriving forest fire probability maps from the fusion of visible/infrared satellite data and geospatial data mining. Modeling Earth Systems and Environment, 2019, 5, 627-643.	1.9	17
82	Trend analysis of selected hydro-meteorological variables for the Rietspruit sub-basin, South Africa. Journal of Water and Climate Change, 2021, 12, 3099-3123.	1.2	17
83	GIS-based multi-criteria approach to delineate groundwater prospect zone and its sensitivity analysis. Applied Water Science, 2022, 12, 1.	2.8	17
84	Hypsometric Analysis Using Microwave Satellite Data and GIS of Naina–Gorma River Basin (Rewa) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.9	15
85	Synergetic methodology for estimation of soil moisture over agricultural area using Landsat-8 and Sentinel-1 satellite data. Remote Sensing Applications: Society and Environment, 2019, 15, 100250.	0.8	15
86	Geochemical modeling to evaluate the mangrove forest water. Arabian Journal of Geosciences, 2015, 8, 4687-4702.	0.6	14
87	Influence of land-use pattern on soil quality in a steeply sloped tropical mountainous region, India. Archives of Agronomy and Soil Science, 2022, 68, 852-872.	1.3	14
88	Multi-criteria decision making and Dempster-Shafer model–based delineation of groundwater prospect zones from a semi-arid environment. Environmental Science and Pollution Research, 2022, 29, 47740-47758.	2.7	14
89	Modelling of hydrological and environmental flow dynamics over a central Himalayan river basin through satellite altimetry and recent climate projections. International Journal of Climatology, 2022, 42, 8446-8471.	1.5	14
90	Analysis of geo-morphometric and topo-hydrological indices using COP-DEM: a case study of Betwa River Basin, Central India. , 0, , 1-28.		14

#	Article	IF	Citations
91	Urban growth modeling using earth observation datasets, Cellular Automata-Markov Chain model and urban metrics to measure urban footprints. Remote Sensing Applications: Society and Environment, 2021, 22, 100479.	0.8	13
92	Multi-decadal groundwater variability analysis using geostatistical method for groundwater sustainability. Environment, Development and Sustainability, 2022, 24, 3146-3164.	2.7	13
93	Prediction of soil erosion risk using earth observation data under recent emission scenarios of CMIP6. Geocarto International, 2022, 37, 7041-7064.	1.7	13
94	Reference Evapotranspiration Retrievals from a Mesoscale Model Based Weather Variables for Soil Moisture Deficit Estimation. Sustainability, 2017, 9, 1971.	1.6	12
95	Intrinsic Vulnerability Evaluation of Groundwater Nitrate Pollution Along a Course of the Subarnarekha River in Jharkhand, India. Water Conservation Science and Engineering, 2021, 6, 55-66.	0.9	12
96	Topographical distribution of cobalt in different agro-climatic zones of Jharkhand state, India. , 2019, 3, 14-21.		11
97	Statistical investigation of long-term meteorological data to understand the variability in climate: a case study of Jharkhand, India. Environment, Development and Sustainability, 2021, 23, 16981-17002.	2.7	11
98	Soil characterization based on land cover heterogeneity over a tropical landscape: an integrated approach using earth observation data-sets. Geocarto International, 2014, , 1-24.	1.7	10
99	A flood assessment of data scarce region using an open-source 2D hydrodynamic modeling and Google Earth Image: a case of Sabarmati flood, India. Arabian Journal of Geosciences, 2021, 14, 1.	0.6	10
100	Climate Change and Agriculture: A Review of Crop Models. , 2020, , 423-435.		10
101	Plant community characteristics and soil status in different land use systems in Dimapur district, Nagaland, India. Forest Research Papers, 2012, 73, .	0.2	9
102	Forecasting Arabian Sea level rise using exponential smoothing state space models and ARIMA from TOPEX and Jason satellite radar altimeter data. Meteorological Applications, 2016, 23, 633-639.	0.9	9
103	Morpho-tectonic assessment of Central Northern escarpment of Peninsular India, based on tectonically sensitive geomorphic indices. Physical Geography, 2022, 43, 753-783.	0.6	9
104	Investigating forest fragmentation through earth observation datasets and metric analysis in the tropical rainforest area. SN Applied Sciences, 2021, 3, 1.	1.5	9
105	Hydro-chemical Survey and Quantifying Spatial Variations in Groundwater Quality in Coastal Region of Chennai, Tamilnadu, India â€" a case study. Indonesian Journal of Geography, 2018, 50, 57.	0.2	9
106	An integrated approach to estimate surface soil moisture in agricultural lands. Geocarto International, 2021, 36, 1646-1664.	1.7	8
107	Irrigation water quality appraisal using statistical methods and WATEQ4F geochemical model. , 2021, , 101-138.		8
108	Soil moisture estimation using triangular method at higher resolution from MODIS products. Physics and Chemistry of the Earth, 2021, , 103051.	1.2	8

#	Article	IF	Citations
109	Parameterizing the modified water cloud model to improve soil moisture data retrieval using vegetation models. Hungarian Geographical Bulletin, 2020, 69, 17-26.	0.4	8
110	Integration of Earth Observation Data and Spatial Approach to Delineate and Manage Aeolian Sand-Affected Wasteland in Highly Productive Lands of Haryana, India. International Journal of Geophysics, 2018, 2018, 1-7.	0.4	7
111	Nutrient dynamics of the Brahmaputra (tropical river) during the monsoon period. , 0, 76, 212-224.		7
112	Support vector machines and generalized linear models for quantifying soil dehydrogenase activity in agro-forestry system of mid altitude central Himalaya. Environmental Earth Sciences, 2016, 75, 1.	1.3	6
113	Comparative evaluation of models to estimate direct runoff volume from an agricultural watershed. , 2021, 5, 94-108.		6
114	Drainage network analysis to understand the morphotectonic significance in upper Tuirial watershed, Aizawl, Mizoram. , 2021, , 349-373.		6
115	A novel approach of mapping landscape aesthetic value and its validation with rural tourism data. Hungarian Geographical Bulletin, 0, , 283-301.	0.4	6
116	Evaluation of long-term nitrate and electrical conductivity in groundwater system of Peninsula, India. Applied Water Science, 2022, 12, 1.	2.8	6
117	Quantitative assessment of landscape transformation using earth observation datasets in Shirui Hill of Manipur, India. Remote Sensing Applications: Society and Environment, 2019, 15, 100237.	0.8	5
118	Distribution of nickel in different agro-climatic zones of Jharkhand, India. , 2020, 4, 52-58.		5
119	Parameterization of the modified water cloud model (MWCM) using normalized difference vegetation index (NDVI) for winter wheat crop: a case study from Punjab, India. Geocarto International, 2022, 37, 1560-1573.	1.7	5
120	Reduced major axis approach for correcting GPM/GMI radiometric biases to coincide with radiative transfer simulation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 168, 40-45.	1.1	4
121	Sub-Surface Investigation Using Vertical Electrical Sounding: Chennai Metropolitan Area. Current World Environment Journal, 2018, 13, 317-330.	0.2	3
122	Retrieval of Surface Roughness Over Cropped Area using Modified Water Cloud Model (MWCM), Oh Model and SAR Data. Journal of the Indian Society of Remote Sensing, 2022, 50, 735-746.	1.2	3
123	Groundwater Quality of Coastal Aquifer Evaluation Using Spatial Analysis Approach. Oriental Journal of Chemistry, 2018, 34, 2902-2912.	0.1	2
124	Assessing the suitability of Ghaghra River water for irrigation purpose in India. , 2021, , 67-81.		2
125	Long-Term Satellite Data Time Series Analysis for Land Degradation Mapping to Support Sustainable Land Management in Ukraine. Advances in Geographical and Environmental Sciences, 2021, , 165-189.	0.4	2
126	Geospatial Analysis of the Impact of Flood and Drought Hazards on Crop Land and Its Relationship with Human Migration at the District Level in Uttar Pradesh, India. Geomatics and Environmental Engineering, 2021, 15, 117-127.	0.5	2

#	Article	IF	Citations
127	Change In Nitrogen Dioxide (No2) Concentration Due To The Lockdown Amid The Covid-19 Pandemic In India. Geography, Environment, Sustainability, 2021, 14, 192-198.	0.6	2
128	Estimation of Evapotranspiration through Open Access Earth Observation Data Sets and Its Validation with Ground Observation. , 2018, , 173-189.		1
129	Quantifying surface soil organic carbon distribution globally during the COVID-19 pandemic using satellite data. Geocarto International, 2022, 37, 12149-12170.	1.7	1
130	Monitoring change in land use and land cover in Rupnagar district of Punjab, India using Landsat and IRS LISS III satellite data. Ecological Questions, 2010, 13, .	0.1	0
131	Mapping of Normalized Difference Dispersal Index for Groundwater Quality Study on Parameter-Based Index for Irrigation: Kanchipuram District, India. , 2021, , 239-260.		0
132	Assessment of silica content in groundwater of Peninsular Indian region using statistical techniques. Indonesian Journal of Geography, 2021, 52, 374.	0.2	0