

# Madan Kumar Jha

## 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.

119  
papers

3,910  
citations

35  
h-index

61  
g-index

122  
ext. papers

4,730  
ext. citations

4  
avg, IF

6.13  
L-index

#	Paper	IF	Citations
119	Management of groundwater drought risk by reliability theory and copula model in Sina basin, India. <i>Sustainable Water Resources Management</i> , <b>2022</b> , 8, 1	1.9	
118	Groundwater recharge over the past 100 years: Regional spatiotemporal assessment and climate change impact over the Saguenay-Lac-Saint-Jean region, Canada. <i>Hydrological Processes</i> , <b>2022</b> , 36,	3.3	1
117	A Novel GIS-Based Modeling Approach for Evaluating Aquifer Susceptibility to Anthropogenic Contamination. <i>Sustainability</i> , <b>2022</b> , 14, 4538	3.6	0
116	Assessing Multi-Criteria Decision Analysis Models for Predicting Groundwater Quality in a River Basin of South India. <i>Sustainability</i> , <b>2021</b> , 13, 6719	3.6	2
115	Investigating Groundwater Condition and Seawater Intrusion Status in Coastal Aquifer Systems of Eastern India. <i>Water (Switzerland)</i> , <b>2021</b> , 13, 1952	3	4
114	Evaluation of water demand and supply under varying meteorological conditions in Eastern India and mitigation strategies for sustainable agricultural production. <i>Environment, Development and Sustainability</i> , <b>2021</b> , 23, 1264-1291	4.5	4
113	Planning rainwater conservation measures using geospatial and multi-criteria decision making tools. <i>Environmental Science and Pollution Research</i> , <b>2021</b> , 28, 1734-1751	5.1	1
112	Observed rainfall changes in the past century (1901-2019) over the wettest place on Earth. <i>Environmental Research Letters</i> , <b>2021</b> , 16, 024018	6.2	22
111	Efficacy of machine learning techniques in predicting groundwater fluctuations in agro-ecological zones of India. <i>Science of the Total Environment</i> , <b>2021</b> , 785, 147319	10.2	7
110	Modeling Soil Moisture and Flow Dynamics of Variably Saturated Heterogeneous Lateritic Porous Media under Wheat Crop. <i>Journal of Irrigation and Drainage Engineering - ASCE</i> , <b>2021</b> , 147, 04021049	1.1	
109	Assessment of precipitation trends and its implications in the semi-arid region of Southern India. <i>Environmental Challenges</i> , <b>2021</b> , 5, 100269	2.6	1
108	Assessing groundwater quality for drinking water supply using hybrid fuzzy-GIS-based water quality index. <i>Water Research</i> , <b>2020</b> , 179, 115867	12.5	60
107	Mapping of laterite zones using 2D electrical resistivity tomography survey in parts of Paschim Medinipur, West Bengal, India: An approach for artificial groundwater recharge. <i>Journal of Earth System Science</i> , <b>2020</b> , 129, 1	1.8	2
106	Application of catastrophe theory to spatial analysis of groundwater potential in a sub-humid tropical region: a hybrid approach. <i>Geocarto International</i> , <b>2020</b> , 1-20	2.7	1
105	Chlorophyll Meter-Based Nitrogen Management in a Rice-Wheat Cropping System in Eastern India. <i>International Journal of Plant Production</i> , <b>2020</b> , 14, 355-371	2.4	2
104	Neural network modeling for groundwater-level forecasting in coastal aquifers. <i>Neural Computing and Applications</i> , <b>2020</b> , 32, 12737-12754	4.8	27
103	Optimizing chlorophyll meter (SPAD) reading to allow efficient nitrogen use in rice and wheat under rice-wheat cropping system in eastern India. <i>Plant Production Science</i> , <b>2020</b> , 23, 270-285	2.4	4

102	Assessing Variability of Infiltration Characteristics and Reliability of Infiltration Models in a Tropical Sub-humid Region of India. <i>Scientific Reports</i> , <b>2020</b> , 10, 1515	4.9	14
101	Clustering of Groundwater Wells and Spatial Variation of Groundwater Recharge in Sina Basin, India. <i>Asian Journal of Water, Environment and Pollution</i> , <b>2020</b> , 17, 11-21	0.7	1
100	Simulation-Optimization for Conjunctive Water Resources Management and Optimal Crop Planning in Kushabhadra-Bhargavi River Delta of Eastern India. <i>International Journal of Environmental Research and Public Health</i> , <b>2020</b> , 17,	4.6	6
99	Identification of critical areas and evaluation of best management practices using SWAT for sustainable watershed management. <i>Science of the Total Environment</i> , <b>2020</b> , 744, 140737	10.2	21
98	Optimization modeling for conjunctive use planning in Upper Damodar River basin, India. <i>Journal of Cleaner Production</i> , <b>2020</b> , 273, 123098	10.3	3
97	Insight into the precipitation behavior of gridded precipitation data in the Sina basin. <i>Environmental Monitoring and Assessment</i> , <b>2020</b> , 192, 729	3.1	6
96	Predicting groundwater depth fluctuations using deep learning, extreme learning machine and Gaussian process: a comparative study. <i>Earth Science Informatics</i> , <b>2020</b> , 13, 1237-1250	2.5	6
95	Probability-based approach for evaluating groundwater risk assessment in Sina basin, India <b>2020</b> , 289-304		1
94	Development of a rainfall Stability Index using probabilistic indicators. <i>Ecological Indicators</i> , <b>2020</b> , 115, 106406	5.8	1
93	Overview, Current Status, and Future Prospect of Stochastic Time Series Modeling in Subsurface Hydrology <b>2019</b> , 133-151		3
92	Development and Evaluation of Hybrid Artificial Neural Network Architectures for Modeling Spatio-Temporal Groundwater Fluctuations in a Complex Aquifer System. <i>Water Resources Management</i> , <b>2019</b> , 33, 2381-2397	3.7	17
91	On the estimation of hydraulic conductivity of layered vadose zones with limited data availability. <i>Journal of Earth System Science</i> , <b>2019</b> , 128, 1	1.8	3
90	Scientific Framework For Subsurface Characterization and Evaluation of Grain-Size Analysis Methods <b>2019</b> , 261-272		
89	Long-term geochemical assessment of groundwater in a hardrock aquifer system. <i>International Journal of Agricultural Engineering</i> , <b>2019</b> , 12, 264-285	0	
88	Comparison of Drought Indices in a Semi-Arid River Basin of India. <i>Water Resources Management</i> , <b>2019</b> , 33, 75-102	3.7	37
87	Simulation of regional irrigation requirement with SWAT in different agro-climatic zones driven by observed climate and two reanalysis datasets. <i>Science of the Total Environment</i> , <b>2019</b> , 649, 846-865	10.2	31
86	Infiltration characteristics of lateritic vadose zones: Field experiments and modeling. <i>Soil and Tillage Research</i> , <b>2019</b> , 187, 219-234	6.5	11
85	Analysis of trend in temperature and rainfall time series of an Indian arid region: comparative evaluation of salient techniques. <i>Theoretical and Applied Climatology</i> , <b>2019</b> , 136, 301-320	3	36

84	Hydrogeologic and hydraulic characterization of aquifer and nonaquifer layers in a lateritic terrain (West Bengal, India). <i>Hydrogeology Journal</i> , <b>2018</b> , 26, 1947-1973	3.1	6
83	Assessing the accuracy of GIS-based Multi-Criteria Decision Analysis approaches for mapping groundwater potential. <i>Ecological Indicators</i> , <b>2018</b> , 91, 24-37	5.8	79
82	Application of Archimedean copulas to the impact assessment of hydro-climatic variables in semi-arid aquifers of western India. <i>Hydrogeology Journal</i> , <b>2018</b> , 26, 89-108	3.1	6
81	CHLOROPHYLLMETER-BASED NITROGEN MANAGEMENT OF WHEAT IN EASTERN INDIA. <i>Experimental Agriculture</i> , <b>2018</b> , 54, 349-362	1.7	4
80	Framework for Standardizing Less Data-Intensive Methods of Reference Evapotranspiration Estimation. <i>Water Resources Management</i> , <b>2018</b> , 32, 4159-4175	3.7	4
79	Assessment and mapping of groundwater vulnerability to pollution: Current status and challenges. <i>Earth-Science Reviews</i> , <b>2018</b> , 185, 901-927	10.2	78
78	Comprehensive risk assessment of groundwater contamination in a weathered hard-rock aquifer system of India. <i>Journal of Cleaner Production</i> , <b>2018</b> , 201, 853-868	10.3	9
77	Development and analysis of the Soil Water Infiltration Global database. <i>Earth System Science Data</i> , <b>2018</b> , 10, 1237-1263	10.5	54
76	Comparative evaluation of GIS-based models for mapping aquifer vulnerability in hard-rock terrains. <i>Environmental Earth Sciences</i> , <b>2018</b> , 77, 1	2.9	7
75	Mapping lithological variations in a river basin of West Bengal, India using electrical resistivity survey: implications for artificial recharge. <i>Environmental Earth Sciences</i> , <b>2018</b> , 77, 1	2.9	6
74	Evaluating persistence and identifying trends and abrupt changes in monthly and annual rainfalls of a semi-arid region in Western India. <i>Theoretical and Applied Climatology</i> , <b>2017</b> , 128, 689-708	3	19
73	Multi-criteria analysis and GIS modeling for identifying prospective water harvesting and artificial recharge sites for sustainable water supply. <i>Journal of Cleaner Production</i> , <b>2017</b> , 142, 1436-1456	10.3	105
72	Comparison of Analytic Hierarchy Process, Catastrophe and Entropy techniques for evaluating groundwater prospect of hard-rock aquifer systems. <i>Journal of Hydrology</i> , <b>2017</b> , 548, 605-624	6	71
71	Numerical groundwater-flow modeling to evaluate potential effects of pumping and recharge: implications for sustainable groundwater management in the Mahanadi delta region, India. <i>Hydrogeology Journal</i> , <b>2017</b> , 25, 2489-2511	3.1	27
70	Pattern recognition in lithology classification: modeling using neural networks, self-organizing maps and genetic algorithms. <i>Hydrogeology Journal</i> , <b>2017</b> , 25, 311-330	3.1	41
69	Evaluation of groundwater resources for sustainable groundwater development in a semiarid river basin of India. <i>Environmental Earth Sciences</i> , <b>2017</b> , 76, 1	2.9	4
68	Ground Water Contamination: Recent Advances in Identifying Sources <b>2017</b> , 97-134		
67	GIS-Based Probabilistic Models as Spatial Prediction Tools for Mapping Regional Groundwater Potential <b>2016</b> , 85-98		

66	Exploring hydrogeology and groundwater dynamics in a lateritic terrain of West Bengal, India, under limited data conditions. <i>Environmental Earth Sciences</i> , <b>2016</b> , 75, 1	2.9	6
65	Hydrologic and hydrogeologic analyses of an alluvial aquifer underlying Kushabhadra-Bhargavi River basin, Odisha, India. <i>Arabian Journal of Geosciences</i> , <b>2016</b> , 9, 1	1.8	
64	Identifying sources of groundwater contamination in a hard-rock aquifer system using multivariate statistical analyses and GIS-based geostatistical modeling techniques. <i>Journal of Hydrology: Regional Studies</i> , <b>2015</b> , 4, 80-110	3.6	109
63	On the statistical forecasting of groundwater levels in unconfined aquifer systems. <i>Environmental Earth Sciences</i> , <b>2015</b> , 73, 3119-3136	2.9	15
62	Parameter identification and uncertainty analysis for simulating streamflow in a river basin of Eastern India. <i>Hydrological Processes</i> , <b>2015</b> , 29, 3744-3766	3.3	41
61	Evaluation of a GIS-Based Watershed Model for Streamflow and Sediment-Yield Simulation in the Upper Baitarani River Basin of Eastern India. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2015</b> , 20,	1.8	10
60	Evaluation of GIS-based multicriteria decision analysis and probabilistic modeling for exploring groundwater prospects. <i>Environmental Earth Sciences</i> , <b>2015</b> , 74, 2223-2246	2.9	27
59	Using Artificial Neural Network Approach for Simultaneous Forecasting of Weekly Groundwater Levels at Multiple Sites. <i>Water Resources Management</i> , <b>2015</b> , 29, 5521-5532	3.7	69
58	Assessing Climate Change Impact on Water Balance Components of a River Basin Using SWAT Model. <i>Water Resources Management</i> , <b>2015</b> , 29, 4767-4785	3.7	59
57	Efficacy of neural network and genetic algorithm techniques in simulating spatio-temporal fluctuations of groundwater. <i>Hydrological Processes</i> , <b>2015</b> , 29, 671-691	3.3	46
56	GIS-based water balance modeling for estimating regional specific yield and distributed recharge in data-scarce hard-rock regions. <i>Journal of Hydro-Environment Research</i> , <b>2015</b> , 9, 554-568	2.3	20
55	Rainwater harvesting planning using geospatial techniques and multicriteria decision analysis. <i>Resources, Conservation and Recycling</i> , <b>2014</b> , 83, 96-111	11.9	78
54	Application of genetic algorithm technique to inverse modeling of tide-aquifer interaction. <i>Environmental Earth Sciences</i> , <b>2014</b> , 71, 3655-3672	2.9	11
53	Characterizing rainfall-groundwater dynamics in a hard-rock aquifer system using time series, geographic information system and geostatistical modelling. <i>Hydrological Processes</i> , <b>2014</b> , 28, 2824-2843	3.3	36
52	Comparative evaluation of numerical model and artificial neural network for simulating groundwater flow in Kathajodi-Burua Inter-basin of Odisha, India. <i>Journal of Hydrology</i> , <b>2013</b> , 495, 38-51	6	75
51	Groundwater-level prediction using multiple linear regression and artificial neural network techniques: a comparative assessment. <i>Hydrogeology Journal</i> , <b>2013</b> , 21, 1865-1887	3.1	91
50	OPTIMAL DEVELOPMENT OF GROUNDWATER IN A WELL COMMAND OF EASTERN INDIA USING INTEGRATED SIMULATION AND OPTIMIZATION MODELLING. <i>Irrigation and Drainage</i> , <b>2013</b> , 62, 363-376	1.1	3
49	Precision nitrogen management using chlorophyll meter for Improving Growth, Productivity and N Use Efficiency of Rice in Subtropical Climate. <i>Journal of Agricultural Science</i> , <b>2013</b> , 5,	1	9

48	Sustainable Management of Groundwater Resources in Developing Countries: Constraints and Challenges <b>2013</b> , 325-348		1
47	Efficacy of Tide-Aquifer Interaction Models for Characterizing Coastal Aquifer Systems <b>2013</b> , 435-444		
46	A data-driven approach for analyzing dynamics of tide-aquifer interaction in coastal aquifer systems. <i>Environmental Earth Sciences</i> , <b>2012</b> , 65, 1333-1355	2.9	4
45	Modeling Short-Term Spatial and Temporal Variability of Groundwater Level Using Geostatistics and GIS. <i>Natural Resources Research</i> , <b>2012</b> , 21, 117-136	4.9	34
44	Hydrologic Time Series Analysis: Theory and Practice <b>2012</b> ,		76
43	Hydrologic and Hydrogeologic Characterization of a Deltaic Aquifer System in Orissa, Eastern India. <i>Water Resources Management</i> , <b>2012</b> , 26, 1899-1928	3.7	5
42	Methods for Time Series Analysis <b>2012</b> , 51-84		4
41	Trend and Homogeneity in Subsurface Hydrologic Variables: Case Study in a Hard-Rock Aquifer of Western India <b>2012</b> , 165-180		4
40	Current Status of Time Series Analysis in Hydrological Sciences <b>2012</b> , 96-136		0
39	Analysis of Trends in Low-Flow Time Series of Canadian Rivers <b>2012</b> , 201-221		1
38	Efficacy of Time Series Tests: A Critical Assessment <b>2012</b> , 139-164		
37	GIS-based assessment and characterization of groundwater quality in a hard-rock hilly terrain of Western India. <i>Environmental Monitoring and Assessment</i> , <b>2011</b> , 174, 645-63	3.1	38
36	Assessment of Groundwater Potential in a Semi-Arid Region of India Using Remote Sensing, GIS and MCDM Techniques. <i>Water Resources Management</i> , <b>2011</b> , 25, 1359-1386	3.7	277
35	Groundwater assessment in Salboni Block, West Bengal (India) using remote sensing, geographical information system and multi-criteria decision analysis techniques. <i>Hydrogeology Journal</i> , <b>2010</b> , 18, 1713-1728	3.1	224
34	Evaluation of HEC-HMS and WEPP for simulating watershed runoff using remote sensing and geographical information system. <i>Paddy and Water Environment</i> , <b>2010</b> , 8, 131-144	1.6	68
33	Delineation of groundwater recharge zones and identification of artificial recharge sites in West Medinipur district, West Bengal, using RS, GIS and MCDM techniques. <i>Environmental Earth Sciences</i> , <b>2010</b> , 59, 1209-1222	2.9	237
32	Artificial Neural Network Modeling for Groundwater Level Forecasting in a River Island of Eastern India. <i>Water Resources Management</i> , <b>2010</b> , 24, 1845-1865	3.7	120
31	Modeling and evaluation of greenhouse for floriculture in subtropics. <i>Energy and Buildings</i> , <b>2010</b> , 42, 1075-1083	7	21

30	Natural and Anthropogenic Disasters: An Overview <b>2010</b> , 1-16		4
29	Sustainable Management of Disasters: Challenges and Prospects <b>2010</b> , 598-609		
28	Potential of Geospatial Technologies for Mitigating Land and Water Related Disasters <b>2010</b> , 469-502		
27	Decision Support System: Concept and Potential for Integrated Water Resources Management <b>2010</b> , 503-535		
26	Cost-effective Approaches for Sustainable Groundwater Management in Alluvial Aquifer Systems. <i>Water Resources Management</i> , <b>2009</b> , 23, 219-233	3.7	18
25	Simulation-Optimization Modelling for Sustainable Groundwater Management in a Coastal Basin of Orissa, India. <i>Water Resources Management</i> , <b>2009</b> , 23, 235-263	3.7	42
24	Design and technology for greenhouse cooling in tropical and subtropical regions: A review. <i>Energy and Buildings</i> , <b>2009</b> , 41, 1269-1275	7	82
23	Integrated remote sensing and GIS-based approach for assessing groundwater potential in West Medinipur district, West Bengal, India. <i>International Journal of Remote Sensing</i> , <b>2009</b> , 30, 231-250	3.1	258
22	Vertical electrical sounding survey and resistivity inversion using genetic algorithm optimization technique. <i>Journal of Hydrology</i> , <b>2008</b> , 359, 71-87	6	31
21	Comparative evaluation of statistical tests for time series analysis: application to hydrological time series / Evaluation comparative de tests statistiques pour l'analyse de s̄ies temporelles: application ¶es s̄ies temporelles hydrologiques. <i>Hydrological Sciences Journal</i> , <b>2008</b> , 53, 353-366	3.5	59
20	Simulation Modeling for Efficient Groundwater Management in Balasore Coastal Basin, India. <i>Water Resources Management</i> , <b>2008</b> , 22, 23-50	3.7	82
19	Hydraulic Parameters of Coastal Aquifer Systems by Direct Methods and an Extended Tide Aquifer Interaction Technique. <i>Water Resources Management</i> , <b>2008</b> , 22, 1899-1923	3.7	37
18	Ensuring sustainable water supplies: A study of groundwater conditions in Salboni Block, West Bengal. <i>Environmental Quality Management</i> , <b>2008</b> , 18, 29-46	0.8	
17	Groundwater management and development by integrated remote sensing and geographic information systems: prospects and constraints. <i>Water Resources Management</i> , <b>2007</b> , 21, 427-467	3.7	305
16	Challenges of using remote sensing and GIS in developing nations. <i>Hydrogeology Journal</i> , <b>2007</b> , 15, 197-200	3.0	47
15	Harnessing earth observation (EO) capabilities in hydrogeology: an Indian perspective. <i>Hydrogeology Journal</i> , <b>2007</b> , 15, 155-158	3.1	22
14	Evaluation of Traditional and Nontraditional Optimization Techniques for Determining Well Parameters from Step-Drawdown Test Data. <i>Journal of Hydrologic Engineering - ASCE</i> , <b>2006</b> , 11, 617-630	1.8	24
13	Modelling Infiltration and quantifying Spatial Soil Variability in a Wasteland of Kharagpur, India. <i>Biosystems Engineering</i> , <b>2006</b> , 95, 569-582	4.8	45

12	Field Investigation of Water Movement and Nitrate Transport under Perched Water Table Conditions. <i>Biosystems Engineering</i> , <b>2005</b> , 92, 69-84	4.8	17
11	Water Quality of the Monobe River with Dams (I) : Seasonal Variations and Changes in Surface Water Quality from Upper to Lower Reaches. <i>Journal of Rainwater Catchment Systems</i> , <b>2004</b> , 9, 1-10	0.2	
10	Planning and Design of Cost-effective Water Harvesting Structures for Efficient Utilization of Scarce Water Resources in Semi-arid Regions of Rajasthan, India. <i>Water Resources Management</i> , <b>2004</b> , 18, 219-235	3.7	25
9	Determining Hydraulic Characteristics of Production Wells using Genetic Algorithm. <i>Water Resources Management</i> , <b>2004</b> , 18, 353-377	3.7	12
8	Determination of hydraulic parameters of an unconfined alluvial aquifer by the floodwave-response technique. <i>Hydrogeology Journal</i> , <b>2004</b> , 12, 628-642	3.1	15
7	On the Basic Stochastic Characteristics (Moments) of Global Annual Precipitations. <i>Journal of Rainwater Catchment Systems</i> , <b>2004</b> , 10, 7-14	0.2	
6	On the Estimation of Phreatic Aquifer Parameters by the Tidal Response Technique. <i>Water Resources Management</i> , <b>2003</b> , 17, 69-88	3.7	23
5	Estimation of Aquifer Parameters from Pumping Test Data by Genetic Algorithm Optimization Technique. <i>Journal of Irrigation and Drainage Engineering - ASCE</i> , <b>2003</b> , 129, 348-359	1.1	46
4	Dynamics of water flow and fertilizer solute leaching in lateritic soils of Kharagpur region, India. <i>Agricultural Water Management</i> , <b>2003</b> , 63, 77-98	5.9	15
3	Field Investigations for Sustainable Groundwater Utilization in the Konan Basin. <i>Water Resources Management</i> , <b>1999</b> , 13, 443-470	3.7	21
2	Mole drainage: Prospective drainage solution to Bangkok clay soils. <i>Agricultural Water Management</i> , <b>1995</b> , 28, 253-270	5.9	5
1	Trends and Variability of Rainfall in Tripura State of India in 1986-2019 and Key Drivers. <i>Pure and Applied Geophysics</i> , 1	2.2	